

*King's Norton and Northfield  
Urban District Council.*

---

SEVENTH ANNUAL REPORT  
OF THE  
HEALTH  
AND  
SANITARY CONDITION  
OF THE DISTRICT,

*For the Year ending December 31st, 1908,*

BY  
REGINALD GREEN, M.D., D.Hy., D.P.H.,  
*MEDICAL OFFICER OF HEALTH,*

AND  
MEDICAL SUPERINTENDENT OF THE INFECTIOUS DISEASES HOSPITAL,  
AND KING'S NORTON DISTRICT SMALLPOX HOSPITAL,  
MEDICAL OFFICER TO THE EDUCATION COMMITTEE,  
FELLOW OF THE INCORPORATED SOCIETY OF MEDICAL OFFICERS OF  
HEALTH,  
AND MEMBER OF THE SANITARY INSTITUTE.

---

*Printed by Order of the Urban District Council.*

---

BIRMINGHAM :  
PRINTED BY HUDSON AND SON, EDMUND ST. AND LIVERY ST.  
1909.

# *King's Norton and Northfield*

## *Urban District Council.*

---

### **Health Committee.**

Councillor A. J. KELLEY (Chairman).

„ J. J. MOFFAT (Chairman of Council).

„ Dr. LILLEY (Chairman of Hospital Sub-Committee).

„ W. COLEY.

„ B. C. BEDNALL.

„ J. FRYER.

„ J. PAYNE.

„ J. COCKS.

„ E. B. BRYAN.

---

### **Sanitary Staff.**

Inspector of Nuisances - ARTHUR E. BONHAM, Cert. San. [Inst.

Consultant - - - JOHN HOUGHTON, Cert. San. Inst.

Assistant Inspector - ARTHUR T. COTTLE, Cert. San. Inst.

„ „ - W. E. HARDING, Cert. San. Inst.

„ „ - D LLEWELLYN, Cert. San. Inst.

„ „ - WILLIAM HUNT (Beoley).

Health Visitor - - MISS THORPE, Cert. San. Inst.

Clerk - - - H. B. BARNSELY, Cert. San. Inst.

Disinfector - - - JOHN FINDON.

Matron of Hospital - MISS MARY COOPER.

Visiting Medical Officer to  
West Heath Hospital- FRANCIS HOLLINSHEAD, M.D.

Medical Officer of Health  
and Medical Superintendent of Infectious  
Hospitals - - - REGINALD GREEN, M.D., D.Hy.  
[D.P.H.]

---

Clerk of Council - - EDWIN DOCKER.

Deputy Clerk - - - HAROLD E. SWALLOW.

Engineer and Surveyor - AMBROSE W. CROSS, A.M.I.C.E.

First Assistant Surveyor - W. E. BALLARD, A.M.I.C.E.

Accountant - - - ERNEST W. WASHBOURNE,  
[A.S.A.A.]

Secretary to Education  
Department - - J. F. MOORE.

# INDEX.

---

	PAGE
Accidents and Suicides ...	32
Bacterial Laboratory ...	7
Bakehouses ...	32
Births and Birth Rates ...	15
Butter ...	38
Canal Boats Act ...	75
Cancer ...	25
Chief Sanitary Inspector's Annual Statement ...	71
Consumption ...	30
Cowsheds and Dairies ...	38, 76
Deaths and Death Rates ...	15
Deaths in Public Institutions ...	42
Deaths Registered from all Causes ...	63
Deaths of Residents in Outside Institutions ...	42
Dietetic Diseases ...	28
Diphtheria ...	46
Drains and Sewers ...	8
Enteric or Typhoid Fever ...	52
Epidemic Diarrhœa ...	24
Erysipelas ...	52
Factories and Workshops Act ...	33, 34
Food and Drugs Act ...	36
Heart Diseases ...	25
Homeworkers ...	33
Housing of the People ...	13
Infantile Mortality ...	19
Infectious Diseases Notification ...	44
Influenza ...	25
Measles ...	23
Meat Inspection ...	59
Milk Production ...	53
Population ...	14
Prosecutions ...	39
Puerperal Fever ...	52
Refuse Removal ...	12
Respiratory Diseases ...	28
Rivers Pollution ...	12
Scarlet Fever... ...	44
School Closure ...	24
Senile Decay... ...	28
Slaughter Houses ...	32
Smallpox ...	44
Smoke Nuisances ...	52
Staff of Department ...	6
Surveyor's Report on Buildings, &c. ...	70
Tuberculosis ...	30
Vaccination ...	29, 42
Veterinary Surgeon's Report ...	53
Water Supply ...	8
West Heath Hospital ...	55, 59
Whooping Cough ...	23
Work of Health Visitor ...	40
Workshops and Workplaces ...	75
Zymotic Deaths and Death Rates ...	22



## INDEX TO TABLES AND CHARTS.

---

	PAGE
Articles and Houses Disinfected (Table XII.)	40
Causes of and Ages at Death in Wards during the Year. Deaths in or belonging to the whole District (Table VII.)	26
Causes of Death in Public Institutions (Table VIII.)	27
Deaths in whole District during the Years 1903-8 (Table IX.)	29
Diphtheria Cases and Deaths at Age Periods (Table XVII.)	51
Factories and Workshops Act (Table X.)	34, 35
Infantile Mortality in Weeks and Months during the Year 1908 (Table IV.)	20
Infectious Cases notified in Districts (Table XIV.)	43
Infectious Diseases, Notifications and Deaths since 1893 (Table XVI.)	47
Quarterly Birth and Death Rates (Table III.)	18
Samples of Milk taken during 1908 (Table XI.)	37
Scarlet Fever Cases and Deaths at Various Ages (Table XV.)	46
Vaccination Returns for the 12 Months ended June 30th, 1908 (Table IXA.)	29
Various Rates in Wards for Years 1903-8 (Table IA.)	11
Various Rates per 1,000 (Table VI.)	23
Various Vital Rates for last Ten Years (Table I.)	10
Visits made in connection with Work of Health Visitor (Table XIII.)	41
Ward Births and Deaths, and Deaths in Public Institutions, 1908 (Table II.)	17
West Heath Hospital Returns (Table XVIII.)	56
Zymotic Deaths and Death Rates in Wards (Table V.)	22

---

	FACING PAGE.
Deaths from the Principal Causes, 1908 (Chart 2)	16
Infant Deaths at Ages under One Year, 1905-08 inclusive (Chart 4)	19
Infant Death Rate per 1,000 Live Births compared with that for England and Wales (Chart 5)...	21
Infantile Mortality, 1905-08 inclusive (Chart 3)	19
Weekly Births, Deaths, and Infant Deaths during 1908 (Chart 1)	15



# *Introduction.*

---

Health Department,  
King's Norton,  
April, 1909.

GENTLEMEN,

I beg herewith to present to you my Seventh Annual Report on the health of the district, and the work done in the Health Department.

At the same time I wish to thank the members of the Council and my fellow officials for their unfailing courtesy and assistance throughout the year.

Your obedient servant,

REGINALD GREEN, M.D.,  
Medical Officer of Health.

# *Annual Report of the Medical Officer of Health, for the year 1908.*

---

## **Re-organization of Health Department.**

During the year 1907 a special Committee was appointed by the Council to reorganize the Health Department.

This Committee met on several occasions, visited the Health Departments at three local towns, and made full enquiries as to their administration.

As a result of their deliberations, it was decided to appoint Mr. John Houghton, the head inspector, for a period of five years, as consulting inspector of nuisances, and to carry out certain special duties.

It was also decided that any future head inspector should be specially qualified as a meat inspector, and :—

- (1) That advertisements should be issued for a head inspector and for one additional assistant inspector.
- (2) That arrangements should be made for the proper training in meat inspection of existing assistant inspectors.
- (3) That the district should be divided into four districts.
- (4) That the Medical Officer of Health should attend at the Health Offices at stated hours.
- (5) That a Veterinary Surgeon should be appointed for the purpose of examining dairy cows, etc.

Following this, Mr. A. E. Bonham was appointed Inspector of Nuisances, and began his duties on March 26th, 1908. He has had a large experience in all branches of sanitary work, and for four years prior to this appointment had been Inspector of Foods under the City of Birmingham.

Mr. Harding, of Reigate, was appointed an additional assistant inspector.

During the year Mr. Budds left the service of the Council, to take up a post in Lincolushire, and his place was taken by Mr. Llewellyn, who came from South Wales.

During the year the staff has carried out its duties in a most energetic fashion, and the assistance of Mr. Houghton, as consultant, has often been of great use to the Department, owing to his long knowledge of the district and the working of the Department.

## Bacterial Laboratory.

During the year there were 295 examinations of throat deposits in doubtful cases of diphtheria, compared with 187 in 1907.

As seen in the accompanying table, in 23 instances typical Klebs-Löffler bacilli were found, in 49 diphtheria bacilli of less typical form.

There were 16 cases of Hoffman or pseudo-diphtheria bacilli.

WARD.	DISTRICT.	Septic Cocci.	Klebs Loeffler Bacilli.	Hoffman Bacilli.	Diphtheria Bacilli.	Doubtful.	Negative.	Total.
King's Norton	Rubery ...	—	—	—	—	1	—	1
	K. Norton...	1	—	—	1	1	1	4
Northfield	Bartley Green	—	—	—	—	—	1	1
	Northfield ...	4	—	—	—	2	2	8
Selly Oak ...	Tenacres ...	4	—	—	1	—	—	5
	Selly Oak ...	2	1	—	2	1	1	7
	Selly Park...	5	2	3	4	2	2	18
	Bournville...	1	1	—	2	—	—	4
	Bournbrook	10	3	1	1	3	6	24
King's Heath...	... ..	10	2	—	7	1	9	29
Moseley	... ..	7	1	—	9	3	7	27
Stirchley ...	Cotteridge...	25	7	—	4	6	9	51
	Bournville...	1	—	—	—	—	2	3
	Stirchley ...	7	3	—	2	2	6	20
Hospital	... ..	25	3	12	16	9	38	93
Total ...		102	23	16	49	31	74	295



Thirty-one specimens were so atypical that no decision could be arrived at.

There were 102 swabs which showed septic organisms, and 74 were negative.

Of the total swabs taken, 18 were in Selly Park, 24 in Bournbrook, 29 in King's Heath, 27 in Moseley, 51 in the Cotteridge, and 20 in Stirchley.

No less than 91 were examined from the Hospital, chiefly with regard to freedom from infection in diphtheria convalescents, none of whom were discharged until bacterially free.

A large number of swabs were taken from cases of doubtful sore throat reported from schools and in houses where diphtheria had been present.

It is intended in future, whenever possible, to have all young contacts in infected houses examined, at any rate, before returning to school.

Quite a large proportion of true diphtheria cases showed bacilli of very abnormal appearance, and in a number of instances second and third examinations had to be made.

## Water Supply.

There were 37 wells cleansed and repaired during the year—21 more than in 1907—and the majority of these were at dairy farms.

Seven polluted surface wells were closed, and three new wells sunk.

There were 35 existing houses supplied from the Corporation mains.

Fifty-four samples of well water were analysed, and of these 15 were condemned as unfit for human consumption, and two were certified as doubtful.

A good deal of trouble was taken with a well at Warstock, which was 90 feet deep. This well suddenly became bad, the water being absolutely putrid. Cleansing seemed of no avail, and after considerable delay and pressure the owner removed the trees and supplied metal pipes. After this the water was again quite good, and has continued so up to the present.

The Corporation water was quite satisfactory during the year, no complaints being received as to its quality.

No cases of shortage of water in the rural areas were heard of.

The well at Beoley Vicarage was certified as unfit for use, and had to be cleansed. The fact that this well is not far removed from the churchyard, which is not very much used, fortunately, is rather against it.

## Drains and Sewers.

A decided increase in the work of drain improvements took place during the year, there being 694 drains cleansed, trapped, and ventilated—almost double the number done in either of the last two years.

There were 110 house drains tested in various ways, compared with 64 in 1907.

In the latter part of the year a powerful smoke machine was procured for the work of the Department. This machine was used on occasions, and in only two instances did it fail to find some defect in the drains tested, and both these had been laid for less than a year.

It was ordained by the Health Committee that where two cases of infectious disease occurred in a house, even from direct infection, that the drains should be tested, even if they did not enter the house.

The obsolete theory of drains as the cause of diseases like scarlet fever and diphtheria naturally gains strong support from a smoke machine of such power, but I am of opinion that practically no drains, unless recently laid down, would stand such an artificial pressure.

One strong argument against this drain theory is the fact that where the drains enter the houses, as in Moseley, for instance, few cases of these diseases arise.

This theory, to my mind, and I voice the expert opinion of the day, is surely a case of "after this and therefore on account of this."

Malaria was at one time always considered to be due to damp miasmatic conditions, but this has now been found to be due to an animal parasite, in the same way as diphtheria has been found to be caused by a vegetable parasite.

There were 142 wastes rectified and 289 sinks.

In the rural districts there were 11 dumbwells constructed and 19 put in order, these being chiefly at dairy farms, and all where no sewers existed.

The sewer has been completed to Longbridge, and most of the continuation to Rubery Village has now been constructed.

Several visits have been made to the sewage outfalls at the two Asylums.

The Rubery Hill was always bad, but that from Hollymoor was of good appearance.

The sewage from the Bournville Tenants' Estate has now been connected with the main system by the laying of a sewer along Hay Green Lane.

This sewer has also improved affairs at Cob Lane, as there the sewage had to be pumped out on to a field.

The Woodbrook sewerage has had the close attention of the Committee during the year, but no final arrangement has yet been come to.

The Committee do not wish to press for sewage tanks if it is possible for a sewer to be laid at an early date, which will obviate this.

The Bournville Village Trust are at the present time getting out plans for a new road to come in this direction, and action is being delayed until these plans are complete.

A number of sewers have been laid where new streets are being built; for instance, in Tenacres, Cotteridge, and other parts.

A number of houses in Bartley Green area have already been connected with the sewer, and the rest are being done.

This will be a great improvement, as various brooks have been contaminated in this part.

Notwithstanding bad drainage, this district has in the past been wonderfully clear of infectious disease.



*Table I.—Various Vital Rates for last Ten Years.*

	10 years average.	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908
Birth Rate ...	27.25	27.73	27.51	31.03	30.14	27.54	28.4	25.62	25.6	24.45	24.54
		Five Years' Average 28.79					Five Years' Average 25.72				
Death Rate ...	11.0	11.4	12.21	12.74	11.25	10.24	11.02	9.62	9.97	10.78	10.78
		Five Years' Average 11.57					Five Years' Average 10.43				
Zymotic Death Rate	1.04	0.8	1.1	1.4	1.1	0.75	0.78	0.73	0.82	0.75	0.82
		Five Years' Average 1.3					Five Years' Average 0.78				
Infant Death Rate per 1,000 live births	107	121	130	128	109	98	102	91	105	105	86
		Five Years' Average 117					Five Years' Average 98				



*Table Ia.—Various Rates in Wards for Years 1903-8.*

WARD.	BIRTH RATE.						ZYMOTIC DEATH RATE.						TOTAL DEATH RATE.					
	1903.	1904.	1905.	1906.	1907.	1908.	1903.	1904.	1905.	1906.	1907.	1908.	1903.	1904.	1905.	1906.	1907.	1908.
King's Norton	17.1	20.0	21.3	17.96	18.05	27.34	0.1	0.46	0.15	0.14	0.28	0.55	8.2	12.6	11.4	9.86	11.14	10.7
Northfield ...	25.0	26.0	26.0	33.36	26.87	28.74	0.8	0.18	1.23	0.8	1.16	0.54	12.8	12.3	12.5	11.65	11.48	9.8
Selly Oak ...	37.0	38.7	34.5	33.4	33.57	31.24	1.1	1.3	1.37	1.26	1.15	0.82	11.8	13.0	10.9	10.97	13.17	11.1
King's Heath	31.0	30.4	27.8	28.08	26.91	29.75	0.5	0.4	0.48	0.63	1.01	0.92	9.9	11.0	9.1	11.09	12.12	15.1
Moseley ...	11.1	11.5	11.0	11.60	10.64	10.0	0.2	0.0	0.08	0.33	0.16	0.48	8.3	7.1	7.2	7.84	7.37	8.3
Stirchley ...	31.1	32.8	25.8	26.60	24.03	20.25	1.1	0.08	0.6	1.17	0.55	1.45	10.4	10.5	8.4	9.61	9.28	10.8
Beoley ...	17.7	23.0	30.0	33.62	35.4	30.1	0.0	0.0	1.77	1.77	0.0	0.0	7.0	9.0	15.9	12.38	12.4	12.4

## River Pollution.

A number of inspections were made of the conditions of the various streams in the district, more especially during the summer months.

The oily pollution of the mill dam at King's Norton was present in the early months of the year, but the screening arrangement put in at the works has practically done away with any deposit lower down.

Complaints were received in July as to oily deposits in the River Bourne, near Tenacres. This was traced back to the Bournville works, where the reservoirs were being cleansed during the vacation.

A visit was made to the works, and an inspection made in company with their Engineer and Medical Officer. The source of the oil was the machinery, but to obviate this the firm have now put in a special plant to catch all waste oil. Since that time no further complaints have been received.

A report was made on the condition of the same stream from where it enters the district at the Frankley Waterworks until it reaches the Park at Bournville. This stream generally contains a large amount of water, the chief source of which is the Welsh water used in washing the upper layers of sand from the filter beds at the Waterworks. This water naturally contains a fair percentage of sand.

An inspection was made again of the cottages on the bank of this stream soon after it enters the district; a small amount of slop sewage still enters the stream, and one or two privy middens are on its banks.

Notice has been served to have the latter replaced by pan closets.

Owing to the position of these houses, any form of drainage, other than the present, is very difficult, and the amount of slops that enter the stream is very small.

This stream, after crossing the Bristol Road, takes the effluent of the sewage from Woodbrook and several large houses near Griffin's Hill, as mentioned in a former paragraph.

Five samples of water were taken in November from this stream; the first was from a short distance above the Manor House grounds, the second just after leaving the grounds, the third below the outfall from the Woodbrook sewer, the fourth at the entry to Bournville Park, and the fifth after leaving the Cocoa Works.

All these samples showed recent organic pollution, the second being the purest, and the fourth the most impure.

The improvement in the water after passing through the works was possibly due to dilution. As before mentioned, the matter of the sewage from Woodbrook, etc., is being dealt with. The pollution of the higher reaches of the Rea will before long be remedied, anyhow as regards the part in this district.

## Refuse Removal.

With the assistance of the new powers in the Council's Act, good progress has been made in the abolition of privies and ashpits, still remaining in the district.



There were 115 privies converted to water-closets during the year—nearly twice as many as in 1907.

In country areas there were 44 privies made into pan-closets, and 42 were repaired.

Several good improvements were made in Bartley Green area, notably the water-closets substituted for privies at the long row at California, and also those at the row in Bartley Green.

Both these places had very foul privies, and as the houses are rather urban in character, although situated in the country, it was a very necessary and salutary change.

Ten slop-closets—unsatisfactory forms of water-closets—were abolished, and new water-closets put up in their place.

The drawbacks of slop-closets are: insufficient flush and fouling of the upper part, which is not flushed at all.

The removal of refuse has been much improved, and for some time past a weekly removal has been in vogue in all urban parts of the district.

The destructor has done its work well, and without causing any nuisance in its vicinity. During the year there were destroyed there 14,581 tons of refuse.

The ashes have proved of great use in the making of roads and for similar work in the district.

## Housing of the Poor.

From the Surveyor's report it is seen that during the year 716 plans for new houses were approved by the Building Committee.

Of these, no less than 351 were in Stirchley Ward, 103 in Selly Oak, 81 in King's Norton, and 61 in Northfield.

Five new roads were made, and four public buildings erected.

There were 127 alterations and additions, and 89 temporary buildings were erected. All plans were submitted to the Health Department where any special sanitary matter was under consideration.

A special Housing Sub-Committee was appointed during the year, and met on several occasions, and paid visits to various parts of the district.

Special investigations were made as to damp sites, including those on low-lying ground liable to flooding, as in the Selly Park area. The housing arrangements in the Dawlish Road district, and the efficiency of the various materials used as damp-proof courses, were also enquired into by the Committee, which is still continuing its sittings.

A special report was made to the Council as to the health of the poorer parts of Bournbrook and the connection with housing.

This dealt with infant mortality, phthisis mortality, and infectious diseases. It was pointed out in the report that infectious diseases flourish amongst the poorer part of the population, who live in smaller houses, have larger families, and less air space per person than those in more affluent circumstances. They have a lower resistance to the encroach-



ments of disease of all sorts, and it is well known that phthisis is very much a disease of the under-fed.

As has been pointed out in the health reports of Birmingham, the population of its internal slums have largely drifted out to the suburbs, where, owing to lower rates and cheaper land, rents are lower.

This is what has happened in Bournbrook, and the conditions of some parts of the Dawlish Road area cannot be considered very hygienic. Only by very constant inspection and drastic action will it be possible to keep such districts in good condition.

It must not be forgotten that these people are living under much better conditions than formerly, as their comparative low mortality rates show.

Inspections were made of a number of old houses in different parts of the district where dampness was reported, due, as a rule, to want of damp-proof courses and to defective eaves gutters. Some very old cottages in Bournbrook were closed as unfit for habitation.

Two old cottages at Beoley, which had been closed some years, were thoroughly done up and reoccupied. This district suffers from a shortage of cheap cottages.

An outhouse in a field at Tanners Green, Wythall, was found to be occupied by a family consisting of two adults and four children. It was totally unfitted for habitation, and after some trouble the family was induced to depart.

Two cases of overcrowding were investigated in King's Heath—one in King's Road and one in Silver Street. The latter was due to there being two families in one house; both these nuisances were abated.

A family residing in a back-to-back house in Grove Road was found to be overcrowding it. This was a serious case, as there was a youth there with advanced phthisis. On pressure being used, the family moved into a new and larger house.

## Population.

The population at the middle of 1908 was 78,608, as calculated by the method adopted by the Registrar-General in this country.

By this system the increase of population is supposed to be the same proportionally as it was in the same period in the last decennium, as shown by the last census.

As the increase of population varies considerably in each ten-year period, this method is hardly a reliable one; but as it is used to compare the vital rates of all the districts in the country, there are decided advantages in using it.

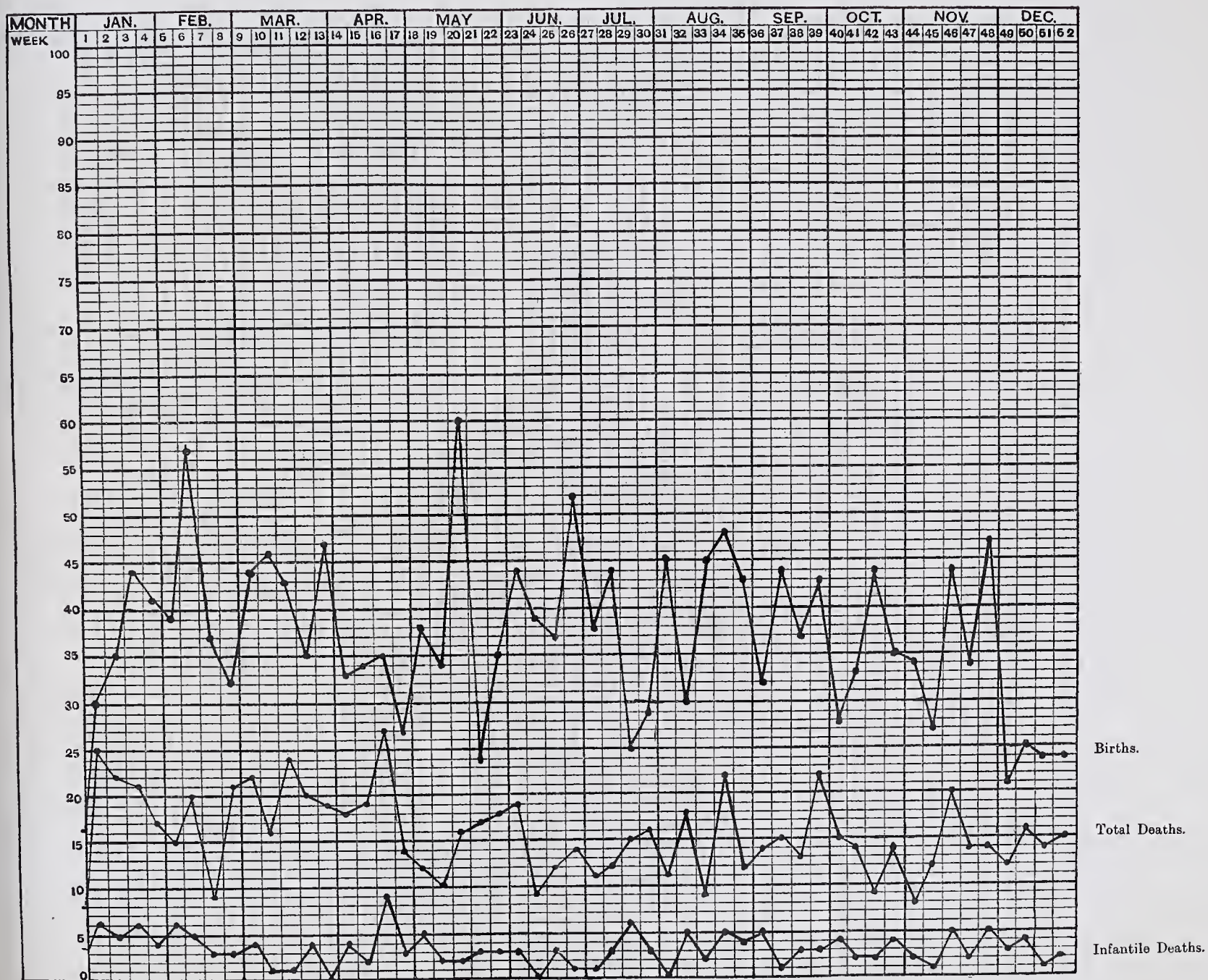
The above number is an increase of 3,100 on the population, similarly estimated, for the year 1907.

The population, calculated by the number of new houses occupied, was 76,716, or an increase of 2,894 inhabitants for the year.

There were registered 1,081 more births than deaths, compared with 1,034 in 1907.

CHART 1.

*Weekly Births, Deaths, and Infant Deaths during 1908.*







The largest increase of population was in Stirchley Ward, where more than 1,000 additional persons were housed.

All the Wards, with the exception of Beoley, showed increases of a few hundred people.

## Births and Birth Rates.

Returns of 1,929 births were received during the year, compared with 1,849 in 1907.

Males were in a decided majority, there being 1,015 male births to 914 females born.

The birth rate was 24·54 per 1,000 population, the same as in 1907, to a decimal point, viz., 24·45.

These two rates are the lowest recorded ones of which I have any record.

The average for the five-year period 1899-1903 was 28·79, and for 1904-8 it was 25·72 per 1,000.

The rate for the ten-year period 1899-1908 was 27·25.

As we look through the birth rates for that period we find that for the first three years it was about 27 per 1,000, when for two years it was about 30, since when there has been a steady decline to the present figures.

The rise in the years 1901-2 was probably associated with the large incoming of a young population, as the district became more urban in its character.

The fall of the birth rate is not a local condition, nor due to any local cause, but is present all over the country, and in the greater part of the civilized world.

The rate was 27·0 in the first quarter, but only 21·4 in the last one.

In the Wards, the highest rate was, as usual, in Selly Oak, 31·24, being closely followed by King's Heath with 29·75.

Moseley, at the bottom of the list, had a rate of 10·0 per 1,000—about the same as in 1907.

When we compare the rates for the last seven years in the Wards, we find that the rate for 1908 in King's Norton was the highest on record,\* whilst the rates in Northfield and King's Heath were about average.

One should not forget that a low birth rate generally means a low infantile death rate.

The birth rate in England and Wales was 26·5 per 1,000, or 0·2 higher than in 1907.

The rate was 27·0 in the large districts, and 26·2 in the rural parts.

## Deaths and Death Rates.

There were registered during the twelve months 848 deaths. Of these, 460 were males and 388 females, showing therefore a marked preponderance of males.

As, however, there was a greater majority in the number of males born than the number that died, there is still a gain of 29 males on the year's figures.

The total of 848 deaths includes 48 residents who died

---

\*Those in Selly Oak, Stirchley and Moseley the lowest recorded.

outside the district, but does not include 238 non-residents who died in the public institutions situate within the district.

It is a remarkable coincidence that the death rate comes out at 10·78 per 1,000, the same as in 1907, the rate, corrected from too favourable age distribution, being in each case 11·28 per 1,000.

Although not the lowest rate recorded, in only three occasions during the last 16 years has there been a lower rate.

The average for the 10 years was only 11·03, and for the last quinquennium the rate was only 10·32 per 1,000.

In the Wards, the rate was, as usual, lowest in Moseley Ward, with a rate of 8·3 per 1,000.

This rate is rather higher than the average, as the rate for the previous four years averaged between 7 and 8 per 1,000.

The rate in Northfield was 9·8 per 1,000—the lowest rate since 1902.

In King's Norton the rate was 10·7 per 1,000—a fair average of the preceding six years.

The rate of 11·1 in Selly Oak Ward was quite low, when one takes into consideration the class of population, but one must make allowance for a young population of a favourable age.

King's Heath had a decidedly high death rate of 15·1 per 1,000, compared with an average of about 11 for the preceding six years.

This increase is not in any way due to zymotic deaths, as they were less than in 1907, although somewhat above the average.

There was an increase in deaths from respiratory diseases, tuberculosis, and wasting diseases of children, these probably being directly associated with severe weather conditions and prevalence of infectious colds.

The death rate in Stirchley was 10·8 per 1,000—only slightly above the average for the last six years.

As is usually the case, the district rate was highest in the first quarter, being 12·8 per 1,000 per annum, being lowest in the last quarter, 8·9, which is not so common.

The rates in the second and third quarters were practically equal, the weather conditions being not very dissimilar.

The death rate in England and Wales was 14·7, which is the lowest on record, compared with 15·0 for 1907.

The rate varied from 14·9 in the large districts to 13·8 per 1,000 in the rural areas.

At age periods, when we compare the deaths in the district during the year with those during 1907, we find a large decrease at ages under one year and under five years.

At 5-15 years and 15-25 years the numbers were greater during 1908, as also at ages over 45 years.

The deaths at the ages of 5-15 years were increased by the excessive mortality from diphtheria, the other chief cause of death being pneumonia.

The excess of deaths in 1908 over 1907 at ages over 25 years was due to increased mortality from influenza, phthisis, and senile decay.

Deaths from the ordinary lung diseases were very similar in number during the two years.

The year 1908 began with severe weather in the first



*Deaths from the Principal Causes,  
1908.*

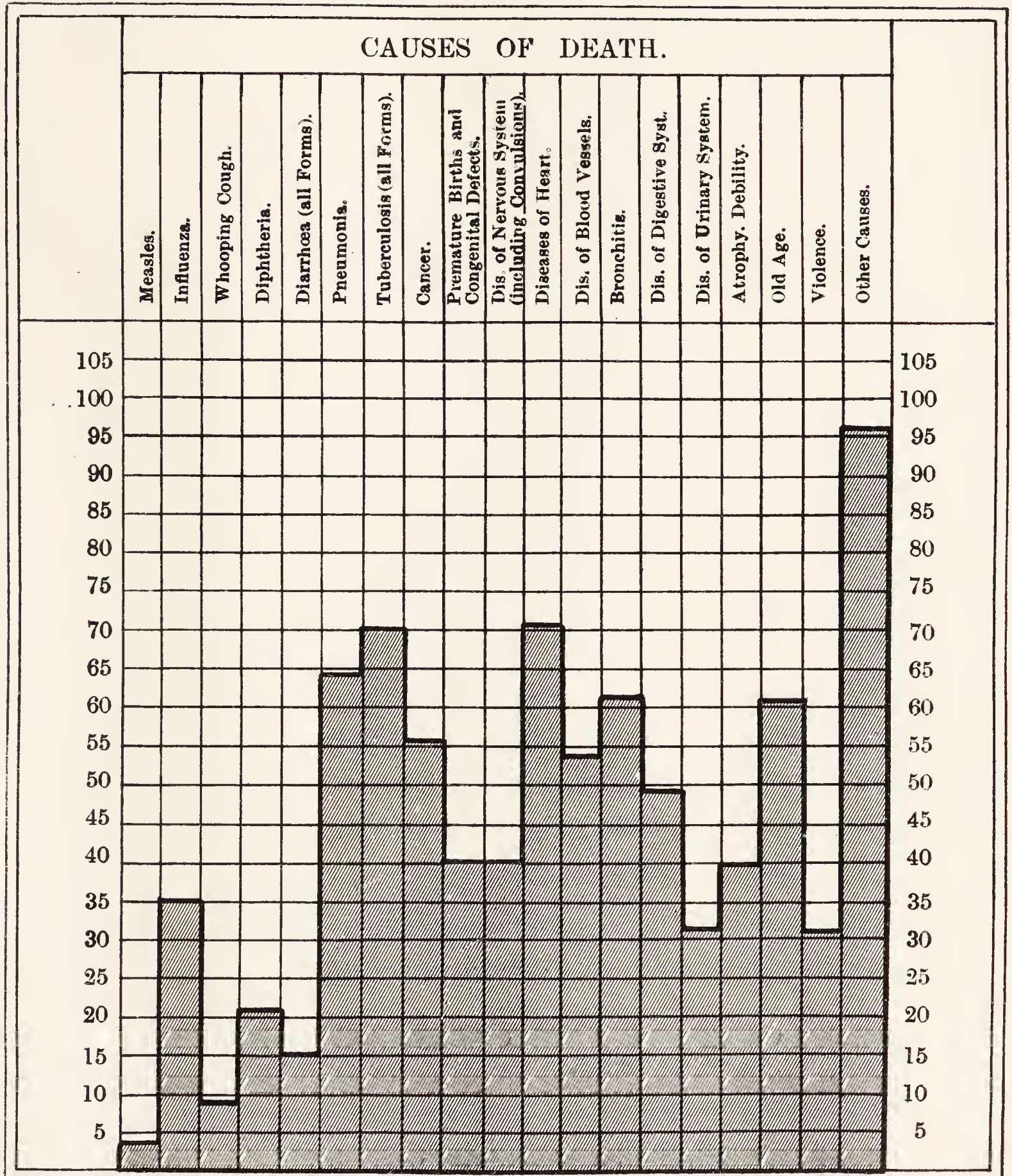






Table II.—Ward Births and Deaths, and Deaths in Public Institutions, 1908.

WARDS	Esti- mated Popu- lation	Births	Rate per 1,000	Deaths at ages						Total	Death Rate per 1,000	Death Rate in 1907
				0-1	1-5	5-15	15-25	25-45	45-65	65 up		
King's Norton	...	...	...	12	4	3	1	14	22	22	10·7	11·14
Northfield ...	...	...	28·74	12	1	1	—	5	11	24	9·8	11·48
Beoley ...	...	...	30·1	3	—	—	—	1	1	2	12·4	12·4
Selly Oak ...	...	...	31·24	59	26	28	11	37	54	54	11·1	13·17
King's Heath	...	...	29·75	46	13	5	6	25	38	53	15·1	12·12
Moseley ...	...	...	10·0	11	2	5	2	7	32	46	8·3	7·37
Stirchley ...	...	...	20·25	24	19	15	5	21	26	39	10·8	9·28
General Hospital, Birmingham	...	...	—	—	—	1	—	4	4	—	—	—
Queen's Hospital, Birmingham	...	...	—	1	1	6	2	4	2	4	—	—
West Heath Hospital	...	...	—	1	7	3	—	—	—	—	—	—
County Asylums ...	...	...	—	—	—	—	1	3	4	1	—	—
Various ...	...	...	—	—	—	—	—	1	1	1	—	—
Totals and Averages	...	1,929	24·54	167	65	57	25	110	184	240	10·78	10·78

quarter, associated with epidemics of colds and influenza; a fine but dry summer being followed by good weather in the last quarter of the year.

There is nothing special to say about the death rate, but it is not to be expected that, as years roll by and we become more urban in character and in our employments, the death rate will become lower, but it is more likely to rise gradually and to approximate to the rate in other urban districts, where similar conditions prevail.

Speaking generally, a death rate is an index up to a point of the average means of the residents of a district.

Naturally, people who can afford to feed wisely, but not too well, who know the laws of health and obey them, who have houses with ample air space inside and around them, who at the first sign of illness procure skilled advice and treatment, who are able to go away to health resorts when they need a change of air, are likely to have low death rates.

Compare this with the way the very poor have to subsist with a small and irregular wage, a large family, and a small house often crowded, too little clothing and food—and that often of a wrong sort—little knowledge of health laws and less chance of living up to them, often great necessity for medical attention, and great difficulty in procuring it.

The work of the Council in educating the people by means of Health Visitors and the teaching of hygiene in the schools is remedying to some extent some of the latter defects, in addition to the feeding of school children, which has been well carried out in the district.

The recent report of the Poor Law Commission, if followed out, may materially improve the position of the bona-fide poor (as contrasted with the loafer), both as regards food and medical attendance.

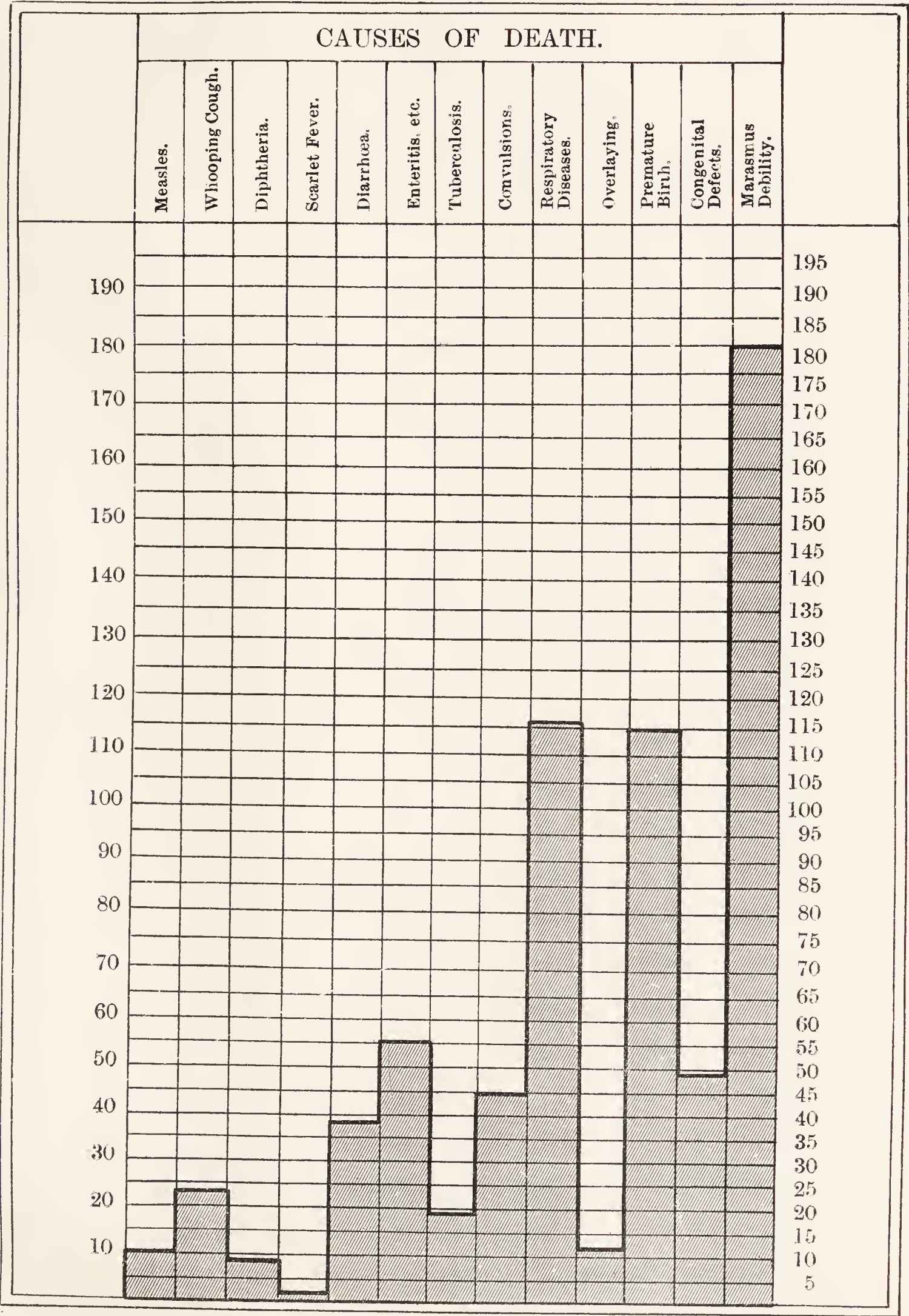
It is well known that the year under review was one of very "hard times," which factor, there is little doubt, helps to swell the annual death roll.

*Table III.—Quarterly Birth and Death Rates.*

	First Quarter.	Second Quarter.	Third Quarter.	Fourth Quarter.
Birth Rate ...	27·0	25·03	25·7	21·4
Death Rate ...	12·8	9·9	9·7	8·9
Zymotic Death Rate	0·35	0·71	0·92	1·32
Infantile Death Rate per 1,000 live births.	91	81	82	86



*Infantile Mortality,  
1905-08 inclusive.*





## Infantile Mortality.

There were 167 deaths of children under one year of age, compared with 195 in 1907.

The rate comes out at 86 per 1,000 live births, as to 105 for the previous two years.

The average for the last 10 years was 107, for the last five-year period 98, and for the previous five years it was 117.

The present rate is a very satisfactory one, and it is the lowest rate ever recorded in the district, the next one being 91, in 1905.

The rate in the country generally was 121, it being 128 in the great towns and 110 in the rural districts.

Of the infants that died 153 were certified by a medical man, and 14, or 8·4 per cent., were uncertified.

There were eight deaths due to diarrhœa, eight to enteritis, one to measles, three to whooping cough, and two to diphtheria.

There were five deaths from tuberculosis, 21 from lung diseases, 32 from premature birth, and 38 from marasmus.

The death from measles was at the age of six months, those from diphtheria at one month and eleven months respectively, and those from whooping cough at three weeks, four months, and nine months.

Three of the deaths from diarrhœa were at ages of 1-6 months, and five from 6-12 months.

There were five death from enteritis at ages under six months, and three over that age.

Of seven deaths from gastric diseases, six were under six months.

Of the 33 deaths from premature birth, no less than 27 occurred before the end of the first week.

Eight deaths from congenital defects took place in the first week of life, and seven over that age.

There were 40 deaths from wasting diseases, of which 15 took place in the first month, 20 from 1-6 months, and five at ages over six months.

Two deaths were certified as due to tuberculous meningitis at ages over eight months, and three from other forms of tuberculosis, two of which were at two months.

Three deaths from rickets were at ages of from one to seven months.

Out of seven deaths from convulsions, six were at ages under four months.

Bronchitis caused two deaths under one month, and six between 1-6 months.

All the 10 deaths from pneumonia were at ages over two months.

There were two deaths from overlaying—one at two months, the other at five months.

Parents who do not possess proper cots for their infants are all, when visited by the Health Visitor, strongly advised to provide a banana crate, at a cost of twopence.

Of 13 deaths from enteritis, eight were in Selly Oak and four in King's Heath Ward.

Eleven deaths, each from premature birth, took place in Selly Oak and King's Heath Wards.

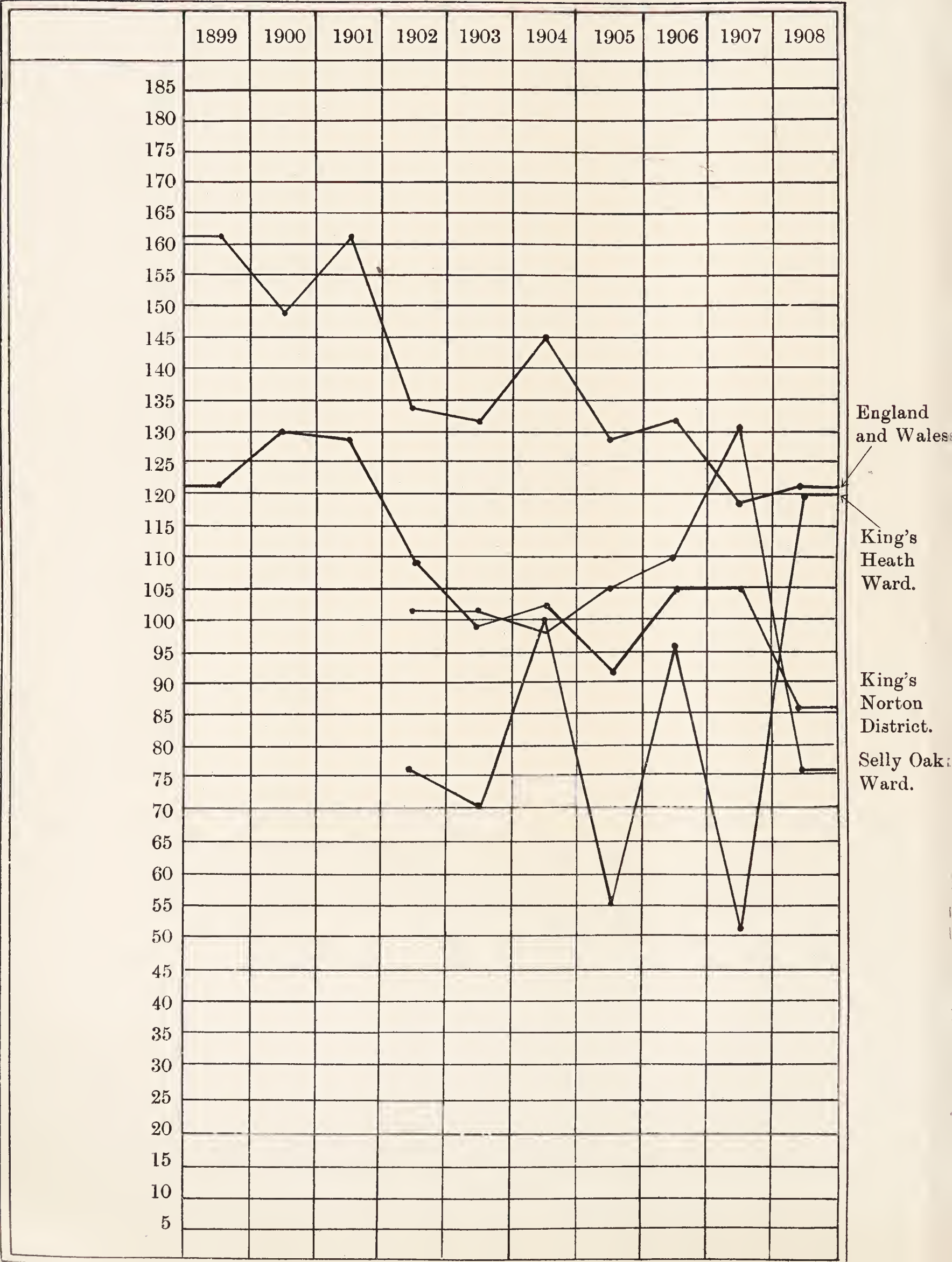


Table IV.—Infantile Mortality in Weeks and Months during the Year 1908.

CAUSE OF DEATH.	Under 1 Week	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.	Total under One Month.	1-2 Months.	2-3 Months.	3-4 Months.	4-5 Months.	5-6 Months.	6-7 Months.	7-8 Months.	8-9 Months.	9-10 Months.	10-11 Months.	11-12 Months.	Total Deaths under One Year.
All Causes—																	
Certified	42	7	4	7	60	18	14	8	12	6	8	6	3	8	4	6	153
Uncertified	5	—	—	1	6	—	3	—	1	2	2	—	—	—	—	—	14
Common Infectious Diseases—																	
Measles	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	1
Scarlet Fever	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Diphtheria, Croup	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	1	2
Whooping Cough	—	—	—	1	1	—	—	—	1	—	—	—	—	1	—	—	3
Diarrhoeal Diseases—																	
Diarrhoea, all forms...	—	—	—	—	—	1	1	—	—	—	1	1	—	1	1	1	8
Enteritis, Muco-enteritis, Gastro-enteritis...	—	—	—	—	—	1	1	—	2	1	—	1	1	—	—	—	6
Gastritis, Gastro-intestinal Catarrh	—	—	—	—	—	2	1	—	—	1	—	1	—	—	—	—	7
Wasting Diseases—																	
Premature Birth	27	3	1	—	31	2	—	—	1	—	—	—	—	—	—	—	33
Congenital Defects	8	1	—	2	11	2	—	—	—	—	—	—	—	—	—	1	15
Injury at Birth	1	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	1
Want of Breast Milk, Starvation...	—	2	—	—	—	—	—	—	—	—	—	—	—	1	1	—	—
Atrophy, Debility, Marasmus	7	—	1	5	15	7	4	2	5	2	1	2	—	—	—	—	40
Tuberculous Diseases—																	
Tuberculous Meningitis	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1	—	2
Tuberculous Peritonitis: Tabes	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mesenterica	—	—	—	—	—	—	2	—	—	—	—	—	—	—	—	1	3
Other Tuberculous Diseases	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Causes—																	
Erysipelas	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	1
Syphilis	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Rickets	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—
Meningitis ( <i>not Tuberculous</i> )	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	1
Convulsions	2	—	—	—	2	—	2	—	—	—	1	—	—	—	—	—	3
Bronchitis	—	1	1	—	—	—	2	1	2	1	2	—	—	1	—	1	7
Laryngitis	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	12
Pneumonia	—	—	—	—	—	—	3	—	1	1	2	—	—	—	—	—	—
Suffocation, overlaying	—	—	—	—	—	—	1	—	—	—	—	—	1	—	—	—	10
Other Causes...	2	—	1	—	3	—	1	—	1	1	1	1	—	2	—	—	2
	47	7	4	8	66	18	17	8	13	8	10	6	3	8	4	6	167



*Infant Death Rate per 1,000 Live Births  
compared with that for England and  
Wales.*





Wasting diseases caused 14 deaths in Selly Oak Ward, 10 in King's Heath, and eight in Stirchley.

The infant death rate per 1,000 live births was lowest in the King's Norton Ward, and highest in King's Heath Ward.

In 1907 the latter Ward had the lowest rate, and Selly Oak, which is quite low in the year under consideration, had then the highest rate.

Northfield, which was high in 1907, was quite low in 1908.

Dealing with small numbers, these variations are naturally bound to occur.

The variation in the quarterly death rates was small, the rate being 91 in the first and 81 in the second quarter.

The work of prevention of infantile mortality is also considered under the heading of "Work of Health Visitor."

When the Notification of Births Act became law, the Council wisely decided to adopt it, and therefore made the necessary application to the Local Government Board.

After some delay, the permission of the Board was obtained for the adoption of the Act, with a proviso that returns should be made of all notified births to the County Council, in connection with the Midwives Act.

This was agreed to, and in June the Act came into force in the district, and has worked smoothly ever since.

It is probable that a certain proportion of the cases are not notified, but this is to be expected, and will doubtless be remedied as people get more used to the altered conditions.

By means of this Act we have been able to have the homes visited within a day or two of the birth, and not as formerly, a month or so afterwards.

Special cards of advice to mothers have been drawn up on the lines adopted at the "School for Mothers" at St. Pancras, which I visited when attending the "Conference on Infantile Mortality" on behalf of the Council at Westminster in March last.

The provision of an institution for the practical education, and, where necessary, feeding of mothers, before and after confinement, would be of the greatest assistance in this war against infantile mortality, a matter of the greatest importance when we consider the present shrinkage of the birth rate.

This is very necessary in some of the urban parts of the district, as cheap houses and trams are bringing here large numbers of people from the poor districts of Birmingham.

One has only to investigate the condition of living in the Dawlish Road area, and similar parts of other districts, to recognize many of the inhabitants as closely related to the slum dweller of the larger town.

Good work is being done in Selly Oak by the Provident Maternity Association, and there seems no reason, given adequate support, why this institution should not develop into a "school for mothers," and combine with this a scheme for the provision of nurses on the Ebberfeld system.

By this system a register is kept of all women who will go out to nurse and take charge of the family in artisans' households at a fixed low rate.

## Zymotic Deaths and Death Rates.

There were registered 65 deaths from zymotic diseases, compared with 57 in 1907.

The rate was 0·82 per 1,000, as to 0·75 in 1907, and 1·04 for the previous 10 years.

For the last five years the rate was 0·78, and for the preceding period 1·3.

The deaths from scarlet fever were the same as in 1907, those from diphtheria much increased, measles deaths much reduced, whooping cough less, and diarrhœa many more.

In the Wards the rates varied from 0·48 in Moseley to 0·92 in King's Heath and 1·45 in Stirchley.

In 1907 the highest rate was in Northfield, which this year has a rate of 0·54.

When we compare the present rates for the past six years we find that the rate in King's Norton—0·55—was above the average, that in Northfield below, King's Heath slightly higher, Moseley rate higher, and Stirchley rate higher.

The rate in England and Wales was 1·29, it being 1·59 per 1,000 in the large districts.

**Table V.—Zymotic Deaths, and Death Rates in Wards.**

WARD.		Smallpox.	Scarlet Fever.	Diphtheria.	Measles.	Pertussis, or Whooping Cough.	Diarrhoea.	Enteric or Typhoid Fever.	Total.	Rate per 1,000.
King's Norton	...	—	1	2	—	—	—	1	4	0·55
Northfield	...	—	—	—	—	1	2	—	3	0·54
Beoley	...	—	—	—	—	—	—	—	—	—
Selly Oak	...	—	3	7	—	4	5	1	20	0·82
King's Heath	...	—	2	1	—	2	7	—	12	0·92
Moseley	...	—	—	3	1	1	—	1	6	0·48
Stirchley	...	—	6	8	2	—	1	3	20	1·45
Rubery Asylum	...	—	—	—	—	—	—	(2)	(2)	—
West Heath Fever Hospital	...	—	(10)	(11)	—	—	—	(1)	(22)	—
Totals	...	—	12	21	3	8	15	6	65	0·82



*Table VI.—Various Rates per 1,000.*

Estimated Population, 78,608				Annual Rates per 1000.
Births	...	...	1,929	24·54
Deaths	...	...	848	10·78
Factor	...	...	1·0466	11·28 (Corrected Death Rate)
Infant Deaths	...	...	167	86·5 (per 1000 live births)
Diarrhæa	„	...	15	0·19
Enteritis	„	...	13	0·16
Smallpox	„	...	Nil	Nil
Measles	„	...	3	0·03
Scarlet Fever	„	...	12	0·15
Diphtheria	„	...	21	0·26
Whooping Cough Deaths			8	0·10
Enteric Fever	„		6	0·07
Phthisis	„		52	0·66
Cancer	„		56	0·71

**Measles.**

Of the three deaths from measles, two were in Stirchley and one in Moseley Ward.

As can be judged by the low mortality (there were 18 deaths in 1907), the disease was not at all prevalent during the year.

Two males and one female died; one was under a year and one between one and five years; and one over five years.

Although this complaint did not flourish, German measles, or rotheln, was very prevalent in certain parts of the district, and several schools had to be closed because of it.

The Stirchley Ward was specially affected.

Fortunately, owing to its extreme mildness, no death took place from it.

The number of deaths from measles was the lowest since 1899.

**Whooping Cough.**

Of the eight deaths from whooping cough, four were in Selly Oak Ward, two in King's Heath, and one each in Northfield and Moseley.

The disease was less fatal than in any year since 1903, and compared favourably with 1907 with 12 deaths.

Seven of the deaths were at ages under five years, the other one being that of an adult—a quite unusual occurrence.

This is a disease that causes a considerable number of deaths, and is endemic in most working-class districts.

In 1901 no less than 33 deaths took place in this district, and this was followed by 17 in 1902.

It seems quite impossible to eradicate diseases like measles and whooping cough, and notification, which has done little to lessen the prevalence of scarlet fever, is useless in the case of these diseases, as has been found in many places.

Home isolation is difficult, and not often attempted among the working-classes; and, anyhow, the infectiousness of measles and whooping cough begins some time before the disease is recognized.



*Table of Schools closed during 1908.*

SCHOOL.	DATE CLOSED	UNTIL	DISEASE.
	1908.	1908.	
King's Heath Infants ...	Jan. 17	Jan. 28	Whooping Cough
Fashoda Road Infants ...	Feb. 24	Mar. 16	„ „
Bournville School ...	April 2	April 27	„ „
Northfield Infants ...	April 8	April 28	Mumps
Northfield Non-provided ...	April 11	April 27	„
Raddle Barn Lane ...	April 11	April 27	Whooping Cough
Stirchley Infants ...	May 2	May 24	German Measles
Silver Street School ...	July 14	Until after Summer Holidays.	Measles
Cotteridge Infants ...	Nov. 3	Nov. 23	Diphtheria
„ „ ...	Dec. 11	Dec. 23	Measles & Dipht- heria
Tiverton Road Infants ...	Dec. 17	Dec. 23	Measles
King's Heath Infants ...	Dec. 18	Dec. 23	„
Northfield Infants ...	Dec. 18	Dec. 23	Chicken Pox

**Epidemic Diarrhœa.**

This infantile complaint caused 15 deaths—13 more than in 1907.

This increase was, no doubt, directly connected with the atmospheric conditions, to wit, the hot, dry summer.

There were eight male and seven female deaths.

There were two deaths in Northfield, five in Selly Oak, and seven in King's Heath.

Eight deaths were at ages under one year, and 12 under five years.

The deaths took place at different periods, the first batch being about the end of August.

At that time were registered the deaths in King's Heath, with one exception, and the two deaths in Northfield Ward, both of which were in Bartley Green.

With the exception of two deaths in one house at King's Heath, the deaths there were not at all localized.

In October, with a return of warm, muggy weather, deaths occurred in Selly Oak, two of which, both uncertified, were near each other in Chapel Lane.

Of course, it must not be forgotten that in addition to these deaths a large number of cases of diarrhœa occurred which were not fatal, in addition to those returned as enteritis.

The distribution of the diarrhœa deaths, if they may be taken as indicating the districts most affected, was rather remarkable.

No death occurred from this disease in either King's Norton Ward, Moseley, or Northfield Village, and only one in Stirchley Ward.

The causative germ of zymotic diarrhœa still seems an unknown quantity, but the relation of the disease to bottle feeding is more than mere coincidence.

The provision of breast feeding, wherever possible, is one of the greatest safeguards in keeping down this disease.

Contamination of the cow's milk occurs at the home, and not at the shed, as, if this were the case, all classes would be attacked, which is not so.

There were 13 deaths returned as enteritis, some of which were epidemic diarrhœa under another name.

There were eight males and five females who died, and eight of the total were under one year of age.

There were eight deaths in Selly Oak Ward and four in King's Heath.

## Cancer.

Cancer of various sorts caused 56 deaths—three less than in 1907.

There were 20 male deaths and 36 female—a similar proportion to that in 1907.

The reason of the larger number of women being affected with cancer is the susceptibility of the female breast and internal organs to that disease.

There were six deaths under 45 years of age, 26 from 45-65, and 24 over 65 years.

Deaths occurred in every Ward except Beoley, there being 17 in Selly Oak, 12 in King's Heath, and nine in Moseley.

## Influenza.

No less than 35 deaths—15 males and 20 females—were certified as due to influenza, and the deaths took place at every age period of life, including under one year.

There were 26 of the total who were adults.

In King's Heath the disease was specially fatal, causing 11 deaths, there being eight in Moseley and seven in Selly Oak.

This disease seems to have become endemic in this country, and a much more fashionable diagnosis than that of "cold."

## Heart Disease.

Of 71 deaths from diseases of the heart, 31 were of males and 40 of females.

In 1907 there were 61 deaths.

Disease of the valves caused 59 of these deaths; three were due to angina pectoris, two to hypertrophy of the heart, and one to aneurism of the aorta.

Most of the deaths were at ages over 25 years, but six were under 15 years.

There were 22 deaths in Selly Oak Ward, 17 in King's Heath, 11 in Moseley, and 12 in Stirchley.

This disease is, as a rule, secondary to rheumatic inflammation of the lining membrane of the heart.



(TABLE IV. OF THE L.G.B.)  
Table VII.—Causes of and Ages at Death in Wards during the year.  
Deaths in or belonging to the whole District.

CAUSES OF DEATH.	All Ages.	0-1 year.	1-5 years.	5-15 "	15-25 "	25-65 "	65 years up.	Males.	Females.	Totals.	WARDS.							PUBLIC INSTITUTIONS.	
											King's Norton.	Northfield.	Beoley.	Selly Oak.	King's Heath.	Moseley.	Stirchley.	(a) Residents included in Cols. 2-8.	(b) Non-Residents excluded from Cols. 2-8.
Smallpox .. .. .	3	1	1	1	—	—	—	2	1	3	—	—	—	—	—	1	2	—	—
Measles .. .. .	12	—	5	5	—	—	—	8	4	12	—	—	—	3	2	—	6	11	—
Scarlet Fever .. .. .	8	3	4	—	—	1	—	2	6	8	—	1	—	4	2	1	—	—	—
Whooping Cough .. .. .	21	2	4	15	—	—	—	11	10	21	2	—	—	7	1	3	8	10	—
Diphtheria and Membranous Croup .. .. .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Fever (Typhus, Enteric, other Continued) .. .. .	6	—	—	—	1	5	—	3	3	6	1	—	—	1	—	1	3	1	2
Epidemic Influenza .. .. .	35	3	1	2	3	13	13	15	20	35	2	4	—	7	11	8	3	1	4
Diarrhoea .. .. .	15	8	4	1	—	2	—	8	7	15	—	2	—	5	7	—	1	—	—
Enteritis .. .. .	13	8	3	—	—	2	—	—	5	13	—	1	—	8	4	—	1	2	—
Puerperal Fever .. .. .	1	—	—	—	—	1	—	—	1	2	—	—	—	—	—	—	—	—	1
Erysipelas .. .. .	2	1	—	—	—	1	—	1	1	3	—	—	—	2	—	—	—	—	—
Other Septic Diseases .. .. .	3	—	—	1	—	2	—	2	1	3	1	—	—	1	—	—	—	—	—
Phthisis .. .. .	52	—	—	1	6	43	2	30	22	52	5	4	1	19	11	1	11	6	39
Other Tubercular Diseases .. .. .	18	5	6	4	1	2	—	11	7	18	—	1	—	9	5	1	2	2	—
Cancer, Malignant Disease .. .. .	56	—	—	—	1	31	24	20	36	56	5	3	—	17	12	9	10	7	20
Bronchitis .. .. .	62	10	3	—	—	18	31	28	34	62	9	4	—	18	13	8	10	1	10
Pneumonia .. .. .	64	11	12	7	4	18	12	40	24	64	11	3	3	21	7	5	14	2	9
Pleurisy .. .. .	2	—	—	—	—	2	—	2	—	2	—	—	—	1	—	—	1	—	—
Other Diseases of Respiratory Organs .. .. .	8	—	4	2	—	2	—	4	4	8	—	—	—	3	—	2	3	—	—
Alcoholism (Cirrhosis of Liver) .. .. .	13	—	—	—	—	11	2	10	3	13	—	—	—	4	2	4	3	—	—
Venereal Diseases .. .. .	2	—	—	—	—	2	—	1	1	2	—	—	—	2	—	—	—	—	—
Premature Birth .. .. .	32	32	—	—	—	—	—	21	11	32	3	3	—	11	11	—	4	—	—
Diseases and Accidents of Parturition .. .. .	1	—	—	—	—	1	—	—	1	1	—	—	—	—	—	—	—	—	—
Heart Disease .. .. .	71	—	—	6	2	37	26	31	40	71	4	5	—	22	17	11	12	7	45
Accidents .. .. .	25	2	2	3	1	8	9	16	9	25	4	—	—	9	4	2	6	—	—
Suicides .. .. .	6	—	—	—	1	5	—	3	3	6	1	—	—	2	3	—	—	—	—
Debility, Marasmus .. .. .	40	38	2	—	—	—	—	29	11	40	1	1	1	14	10	5	8	6	9
Old Age (Senile Decay) .. .. .	61	—	—	—	—	—	61	22	39	61	8	9	1	13	11	10	9	6	24
All Other Causes .. .. .	216	43	14	9	4	86	60	132	84	216	19	13	1	66	53	32	32	6	50
Totals .. .. .	848	167	65	57	25	294	240	460	388	848	78	54	7	269	186	105	149	68	215



*Table VIII.—Causes of Death in Public Institutions.*

	Union In- firmary.	Rubery Asylum.	Moseley Hall.	St. Paul's Convent	Mony- hull Colony.	Totals.
Enteritis ... ..	3	—	1	—	—	4
Enteric Fever ...	—	2	—	—	—	2
Influenza ... ..	4	1	—	—	—	5
Obstruction of Intes- tine ... ..	2	1	—	—	—	3
Erysipelas ... ..	1	—	—	—	—	1
Phthisis ... ..	32	12	1	—	—	45
Other Tubercular Diseases ... ..	1	—	—	—	1	2
Cancer ... ..	23	2	—	1	1	27
Heart Disease ...	32	20	—	—	—	52
General Paralysis ...	5	4	—	—	—	9
Apoplexy ... ..	11	1	—	—	1	13
Epilepsy ... ..	2	5	—	—	2	9
Bronchitis ... ..	9	2	—	—	—	11
Pneumonia ... ..	7	2	—	—	1	10
Senile Decay... ..	23	7	—	—	—	30
Marasmus, Debility...	15	—	—	—	—	15
Various Diseases ...	15	6	—	1	—	22
Totals ... ..	185	65	2	2	6	260

Males, 129 ; Females, 131.

## Respiratory Diseases.

Diseases of the lungs and air passages caused 136 deaths—74 males and 62 females—compared with 1907, when there were 143 deaths.

Of these deaths, 62 were due to bronchitis, with an excess of female deaths, 64 caused by pneumonia, males being very much in the majority, and two deaths were from pleurisy.

The deaths from bronchitis were at ages under five and over 25, more especially over 65 years of age.

Pneumonia, which is of two forms, lobar and lobular, attacked persons at all ages, there being 23 under five years and 12 over 65 years. There were 18 deaths from bronchitis in Selly Oak Ward, 13 in King's Heath, and nine in King's Norton.

Pneumonia caused 21 deaths in Selly Oak and 14 in Stirchley Ward.

As a rule, both these diseases are brought on by neglected colds, in many cases fostered by defective conditions of the throat and nose.

Possibly some of the deaths certified as due to these diseases were really caused by influenza.

The number of deaths from respiratory diseases has been on the up grade since 1905, but this probably is causally connected with more severe winters and generally unfavourable weather.

## Senile Decay.

Old age, or senile decay, was registered as the cause of death in 61 cases—22 males and 39 females.

In 1907 male deaths exceeded female deaths.

All the deaths were at ages over 65 years of age, 50 of them being over 75, and 14 over 85 years.

The deaths occurred in every Ward from this complaint, if it is one, the lowest proportion being in Northfield.

## Dietetic Diseases.

There were 13 deaths—10 males and three females—certified as due to the abuse of stimulants.

Eleven of these were due to cirrhosis of the liver and two to alcoholism.

The deaths in 1907 from this class of disease were 14.

Of these deaths, four took place at ages under 45 years and 11 under 65 years.

There were four deaths each in Moseley and Selly Oak, three in Stirchley, and two in King's Heath.

No deaths occurred in either King's Norton or Northfield.

The progress of education, combined, perhaps, with scarcity of money, is having a good effect in promoting temperance in our midst, as has been shown by the recent reports of the Revenue Department of the Government.





## Tuberculosis.

There was a marked, but probably coincidental, increase in the number of deaths from the various forms of tuberculosis.

The deaths amounted to 70, compared with 54 in 1907.

As the majority of sufferers from this disease (in its most common forms, at least) live for several years, this increased mortality may be either due to the fact that more persons were infected three or four years ago, or that, owing to injurious atmospheric conditions, more persons died than usual in 1908.

In six instances the disease attacked the brain, and in four the intestinal glands, all these cases being in young children.

There were five deaths from generalized tubercle, and two from other forms.

It is now generally accepted in this country that tubercle in young children is due to ingested milk, which contains the specific organism.

The source of this milk is not now considered to be only cows with tubercular udders, but cows with other forms of tuberculosis.

According to the recent report of the Commission, the dung, which gains access to the milk in the average cowshed, is very liable to contain virulent tubercle bacilli.

How much more necessary than ever is it, then, to have clean milk and groomed cows?

The Council are now putting into force their powers with regard to tuberculous milk.

## Pulmonary Tuberculosis.

Tubercular phthisis of the lungs was registered as the cause of 52 deaths of residents, as to 37 in 1907.

Of these deaths 30 were males and 22 females.

One death was at an age under 10 years, five were between 20-25 years, 21 between 25-35 years, 11 between 35-45, and the rest over 45 years of age.

The deaths were distributed over the Wards fairly evenly, in proportion to the population.

There were nine deaths in Selly Oak and 11 each in King's Heath and Stirchley.

The assertion that phthisis is a disease of the working-classes is borne out by the fact that only one death from it took place in Moseley, although there were four in 1907.

The average number of annual deaths for the last five years was 44, and we can therefore roughly calculate that there are about 150-200 sufferers from this disease in the district at any one time.

The same procedure has been carried out as in former years in disinfecting the premises and clothing where a death from phthisis has occurred.

Under the Council's Private Act of 1907, special power is given for the cleansing and disinfection of articles where considered necessary, and this would apply to infected clothing in cases of consumption.

The principle of voluntary notification of consumption was during the year agreed to by the Council, but it has so far not been begun.

The reason of this is that unless provision is made for the treatment of cases of this disease there is little advantage to be gained from notification alone.

The matter has therefore been deferred for a short time until some arrangement can be arrived at to provide such treatment.

To this end conferences are being called together of various local authorities in this part of the country in order that a combined sanatorium may be provided.

Notification has, however, been begun by the Regulations issued at the end of 1908 by the Local Government Board.

These require all Union Medical Officers and certain other officials to report cases of pulmonary tuberculosis to the Medical Officer of Health of the district.

In connection with this a booklet has been circulated containing very valuable advice on this subject from the Medical Officer of the Local Government Board, one of our great authorities on the prevention of tuberculosis.

Ample provision, to the extent of 68 beds, in a special ward, has been made for the treatment of phthisis cases at the Union Infirmary.

These cases, the majority of which come from other districts, are, as a rule, advanced ones, which could not be cured by sanatorium treatment, but they receive very great benefit from open-air treatment.

A number of shelters and verandahs have been provided by the Guardians, who are to be complimented on their good work in this direction.

The educative effect of even a few weeks under open-air treatment is of the greatest value.

The great trouble in curative treatment is that it is so difficult to procure patients in an early stage of the disease, and unless this is done, cure is a very difficult and lengthy proceeding.

The treatment of late cases is quite a separate matter from that of early or curable ones, and a separate institution must be provided for this purpose, in addition to the block erected by the King's Norton Guardians, as, unfortunately, many people will not avail themselves of the benefits at any place controlled by a Poor Law authority.

When the recommendations of the recent Poor Law Commission are carried out, probably less difficulty in this matter will be experienced.

### **Other Causes of Death.**

Three deaths were due to venereal diseases—one from syphilis and two from gonorrhœa—all being adults.

Three deaths were registered from pyæmia, or blood-poisoning.

Diseases of the stomach caused nine deaths, and diseases of the other digestive organs 16 deaths.

There were 23 deaths from Bright's disease and nine from diseases of the bladder.

There was only one death, with the exception of the death from puerperal fever, certified as due to pregnancy and childbirth.



Eleven deaths were from diabetes—four more than in 1907.

Apoplexy, which is due to a diseased condition of the arteries, was the cause of 43 deaths.

Softening of the brain produced five deaths, epilepsy six; eight other deaths were also due to diseases of the nervous system.

## Accidents.

Accidental death was registered in 25 instances, compared with 29 in 1907.

There were 16 males and nine females who died in this way.

Of these 17 were adults and four were under five years.

Nine deaths were in Selly Oak and six in Stirchley Ward.

Four deaths occurred in traffic, four from burns and scalds, four by drowning, and four by suffocation, one of which was due to **overlaying**.

Falls were the cause of nine deaths, all adults.

## Suicides.

Only six suicides took place—about half the number of 1907.

All the victims were adults, there being an equal number of males and females.

Hanging caused one death, poison one death, three were from drowning, and one from shooting.

Two deaths were in Selly Oak Ward and three in King's Heath.

## Bakehouses.

These establishments have been carried on in a satisfactory manner during the year, there being 44 on the register.

One bakehouse in King's Heath, of rather a temporary nature, was found to be short of ventilation, which was remedied.

Another one there had only a privy, well away from the bakehouse. This has been abolished, and arrangements made for the use of the w.c. at the house of the owner.

In a bakehouse at Moseley, the yard was so covered with a glass roof as to practically bring a w.c. into the same building as the bakehouse. This is being altered by removing part of the roof.

## Slaughterhouses.

There are 23 slaughterhouses in the district, either registered or licensed.

There were 34 contraventions of the bye-laws noted and remedied.

The staff made 626 visits to these places, and a number of inspections were made by myself.



## Factories and Workshops.

There were 298 workshops registered, or 32 more than in 1907.

Slight increases were recorded in all branches of trades, these being largely due to the fact that more inspection was possible, owing to increase of staff.

The workshops included 44 bakehouses, the shops of 46 shoemakers, 22 dressmakers, 23 milliners, and 18 blacksmiths, together with 18 workplaces, which include stables, etc.

There were 14 visits paid to laundries, 262 to workshops, and 11 to workplaces.

Four notices were sent in regard to factories, 40 to workshops, and two to workplaces.

There were 95 workshops that were wanting in cleanliness, 12 insufficiently ventilated, and five wanting drainage of floors.

There were 102 other nuisances detected, these consisting of accumulations, neglect to put up abstract, necessity for limewashing, etc.

In six places the sanitary accommodation was unsuitable or defective, and in 19 there were breaches of the Sections 97 to 100 with reference to bakehouses.

Although plans have been got out and approved, the conversion of the foul privies to w.c.'s has not yet been done at the Lifford paper works.

There were 61 other offences discovered and remedied.

### 4.—REGISTERED WORKSHOPS.

Workshops on the Register (S. 131) at the end of 1907—

Bakehouses ...	...	...	...	...	...	44
Blacksmiths ...	...	...	...	...	...	18
Dressmakers ...	...	...	...	...	...	22
Laundries ...	...	...	...	...	...	10
Milliners ...	...	...	...	...	...	23
Shoemakers ...	...	...	...	...	...	46
Workplaces ...	...	...	...	...	...	18
Miscellaneous ...	...	...	...	...	...	117
Total ...	...	...	...	...	...	298

## Homeworkers.

No lists of outworkers were received from employers within the district.

There were two lists sent on from Birmingham, and 15 visits were made to the premises.

In two cases defects of a minor description were discovered and remedied.

There were 85 homeworkers' premises on the list, compared with 73 in 1907.

Owing to the changing of staff and school inspection work, it has been impossible to do this work as thoroughly as usual.

The absence of any lists from employers in this district, who are not very numerous, is being enquired into, as proper notice has been given in the past.

## Table X.—Factories and Workshops Act.

### 1.—INSPECTION.

*Including Inspections made by Sanitary Inspectors or Inspectors of Nuisances and Health Visitor.*

PREMISES.	NUMBER OF		
	Inspections.	Written Notices.	Prosecutions.
Factories (including Factory Laundries)	14	4	None.
Workshops (including W'kshop Laundries)	262	40	
Workplaces ... ..	11	2	
Homeworkers' Pre- mises ... ..	79	2	
Total... ..	366	48	—

### 2.—DEFECTS FOUND.

PARTICULARS.	NUMBER OF DEFECTS			Number of Prosecu- tions.
	Found.	Remedied.	Referred to H.M. Inspector.	
Want of Cleanliness ...	95	92		None.
Want of Ventilation ...	12	10		
Overcrowding ... ..	—	—		
Want of Drainage of Floors	5	5		
Other Nuisances ... ..	102	99		
*Sanitary Accommodations :				
{ Insufficient ... ..	—	—		
{ Unsuitable or Defective	6	In hand.		
{ Not Separate for sexes	—	—		
Breaches of S.S. 97-100	19	18		
Other Offences ... ..	61	61	—	
Total ... ..	300	285	—	—

\* Section 22 of P.H. A.'s Amendment Act, 1890, adopted.

### III.—HOMEWORK.

NATURE OF WORK.	OUTWORKERS' LIST, SECTION 107.							SANITARY DEFECTS FOUND.			
	List received from Employers.			Numbers of Addresses of Out-workers received from other Councils.	Numbers of Addresses of Out-workers forwarded to other Councils.	Prosecutions.		Number of Inspections of Out-workers' premises.	Instances.	Notices served.	Remedied.
	Twice in the year.		Once in the year.								
	Lists.	Out-workers.	Lists.	Out-workers.	Failing to keep or permit inspection of lists.		Failing to send lists.				
WEARING APPAREL—											
(1) Making, &c. ...	...	...	...	...	2	...	...	15	2	...	2
(2) Cleaning and Washing	...	...	...	...	...	...	...	...	...	...	...
Lace, Lace Curtains and Nets	...	...	...	...	...	...	...	...	...	...	...
Furniture and Upholstery ...	...	...	...	...	...	...	...	...	...	...	...
Fur Pulling ...	...	...	...	...	...	...	...	...	...	...	...
Umbrellas ...	...	...	...	...	...	...	...	...	...	...	...
Carding, &c., of Buttons, &c....	...	...	...	...	...	...	...	...	...	...	...
Paper Bags and Boxes	...	...	...	...	...	...	...	...	...	...	...
Brush Making ...	...	...	...	...	9	...	...	...	...	...	...
Stuffed Toys ...	...	...	...	...	...	...	...	...	...	...	...
File Making ...	...	...	...	...	...	...	...	...	...	...	...
Electro Plate ...	...	...	...	...	...	...	...	...	...	...	...
Cables and Chains ...	...	...	...	...	...	...	...	...	...	...	...
Anchors and Grapnels	...	...	...	...	...	...	...	...	...	...	...
Cart Gear ...	...	...	...	...	...	...	...	...	...	...	...
Locks, Latches and Keys	...	...	...	...	...	...	...	...	...	...	...
TOTAL ...	...	...	...	...	11	...	...	15	2	...	2



## 5.—OTHER MATTERS.

### Food and Drugs Act.

There were 215 samples taken under the Act, or seven more than in 1907.

Of these samples three were certified by the County Analyst as adulterated, equal to 1·4 per cent.

In 1907 only one sample was found adulterated; but still, the proportion this year is very low.

Too low a proportion of adulteration may signify either great honesty amongst the dealers or want of smartness in collecting samples.

### Samples taken.

Substance.	No. of Samples.	No. Adulterated.
Milk .....	75	1
Separated Milk .....	3	—
Condensed Milk .....	8	—
Butter .....	98	2
Margarine .....	3	—
Lard .....	3	—
Whisky .....	8	—
Brandy .....	5	—
Vinegar .....	3	—
Coffee .....	9	—
Total .....	215	3

### Milk.

There were 75 samples of new milk taken, compared with 102 in 1907.

This reduction in the number taken was owing to the fact that the quality of the milk was found to be very high in 1907, and it was thought advisable to turn more attention to butter, which, during parts of the year, was very scarce.

The only sample certified as adulterated was deficient in fat to the extent of 13·3 per cent.

The dealer was prosecuted, and fined 20/- and costs.

In addition to these, there were eight samples of condensed milk taken, none of which were sophisticated.

The average quality of the milk during the year was good, containing about 3·5 per cent. of fat and 8·5 per cent. of solids not fat.

The average of fat is less than in 1907, when it was 3·82; but this may be accounted for by the dry weather during 1908, which naturally affected the grass for feeding purposes.

The fat is still 0·5 above the average, whilst the solids not fat are normal.

Table XI.—Samples of Milk taken during 1908.

MONTH.	No. of Samples taken.	No. of reported adul- terated.	ACTION TAKEN.		COMPOSITION AS PER ANALYST'S CERTIFI- CATE.*		SEASONAL VARIATIONS OF COMPOSITION OF PURE MILK. (Average).		REMARKS.
			Vendors Prosecuted.	Vendors Warned.	Fat (Standard 3%).	Solids not Fat (Standard 8.5%).	Fat	Solids not Fat.	
January ...	—	—	—	—	—	—	3.88	8.96	
February ...	19	—	—	—	3.93	8.57	3.81	8.97	
March ...	—	—	—	—	—	—	3.73	8.94	
April ...	6	—	—	—	3.23	8.62	3.71	8.94	
May ...	6	—	—	—	3.78	8.76	3.64	8.95	
June ...	6	—	—	—	3.11	8.65	3.54	8.89	
July ...	6	1	—	1	3.42	8.4	3.64	8.80	
August ...	—	—	—	—	—	—	3.82	8.75	
September ...	7	—	—	—	3.67	8.55	3.89	8.87	
October ...	—	—	—	—	—	—	4.03	8.97	
November ...	9	—	—	—	3.74	8.65	4.04	8.94	
December ...	20	—	—	—	3.75	8.47	4.08	8.97	
	79	1	—	1	3.55	8.55	Average 3.82	Average 8.91	

\* Supplied by courtesy of County Analyst.

## Butter.

There were 98 samples of butter officially taken for analysis, in addition to 12 that were taken unofficially.

Two of these official samples were found to contain foreign fat, and prosecutions were taken out, and the defendants fined.

In addition, three samples of margarine were taken, but were found to be genuine.

One person was fined for exposing margarine for sale unlabelled.

Action was taken against a dealer for using a margarine label that was not sufficiently legible, but the case was dismissed on some technicality, for which the Council officials were not responsible.

Another dealer was fined for exposing unlabelled margarine, and also for sending it out not properly labelled.

No sample of butter was certified to contain more water than the standard, which is 16 per cent.

In no instance were preservatives found, to judge by the analyst returns.

## Other Substances.

There were three samples of lard taken, eight of whisky, five of brandy, three of vinegar, and nine of coffee.

None of these were certified as adulterated, which seems quite satisfactory.

## Cowsheds and Dairies.

There was an addition of no less than 32 dairy farms to the register, the total now being 162.

In a wide district like this, with a short staff, it takes a considerable time to discover all these farms, the difficulty being specially great near the boundaries of the district.

These farms include 249 sheds.

There have been surveyed up to date 146 farms, with 203 cowsheds.

During the year informal notices were served in respect of 56 farms, containing 103 cowsheds.

Of these farms, work has been completed in 40, with 84 sheds.

There were three new sheds built, and seven reconstructed.

Five sheds were closed and three were demolished.

Eight sheds were provided with increased air space by removal of lofts, etc.; in four sheds the number of cows were reduced, and 39 sheds had ventilation provided or improved.

Windows were provided in 43 sheds, and extra ones in 24.

In 215 instances various drainage arrangements were improved, and the flooring in 41 sheds.

Out of 27 samples of well water at dairy farms taken, 10 were unfit for use, and consequently five wells were closed and 14 cleansed.

At four farms water was laid on from the city mains.

In addition to the above, a large number of other sanitary improvements were carried out at farms.

There were five privies converted to w.c.'s, and 14 to pan closets, 18 pigsties paved and drained, 18 yards improved, 12



# *List of Prosecutions.—Food and Drugs.*

Samples.	Result of Analysis.	Result of Prosecution.
Margarines exposed for sale unlabelled...	Contained 90 per cent. of margarine...	Fined 10/- and costs.
Milk ... .. {	Deficient in fatty solids 13·3 ...	} " 20/- "
Margarine improperly labelled ...	Deficient in non-fatty solids 5·8 ...	} Dismissed.
Butter not of the substance and quality demanded ... ..	...	...
Margarine exposed for sale unlabelled ...	Contained 20·8 of foreign fat ...	Fined 60/- and costs.
Margarine delivered to the purchaser in an unlabelled wrapper ...	...	" 20/- "
...	...	" 20/- "

## *Other Offences.*

Offences.	Result of Prosecution.
Exposing for sale Mouth Blown Carcases of Calf ...	Fined 5/- and costs.
Exposing for sale Meat unfit for Human Food ...	" £10 "
Depositing Meat on premises unfit for Human Food ...	" £5 "
Keeping Pigs in contravention of Bye-laws ...	" 20/- "

dairies put in order, 61 manure heaps moved, and 162 cowsheds limewashed under verbal notice.

The above list gives some idea of the large amount of work that has been done during the year in the somewhat colossal task of cleansing the "Augean stable" in the shape of our cowsheds and dairies.

*Table XII—Articles and Houses Disinfected.*

Houses ... ..	476
Flock and Feather Beds ... ..	462
Mattresses ... ..	96
Bolsters ... ..	514
Pillows ... ..	631
Blankets ... ..	738
Counterpanes ... ..	408
Cushions ... ..	12
Rugs ... ..	10
Carpets ... ..	6
Articles of Clothing ... ..	1,071
Mats ... ..	2
Various ... ..	4
	<hr/>
	4,430
	<hr/>

### Work of Health Visitor.

There were 1,177 visits made to houses where births had been reported, and 69 enquiries with regard to infantile deaths.

Enquiries were made into 154 cases of whooping cough, 87 of chicken pox, 88 of scarlet fever, 195 of measles, and 30 of mumps.

There were 844 births notified under the Act during the six months.

Of 509 births, where full enquiries were made, 413 were breast-fed and 96 fed on the bottle.

It was generally found that the mothers were adopting the hygienic short tube bottles in place of the microbe-carrying long-tubed one.

The bad habit of giving young children "soothers," or, as the French call them, "baby killers," does not seem to decrease as it should do.

One finds children of three or four years of age still sucking these foul things, which, in addition to being carriers of germs, spoil the shape of the mouth, damage the digestion from the excessive swallowing of saliva, and diminish the size of the nasal passages, with consequent mouth-breathing.

There were 141 visits made with regard to dirty children, chiefly reported from the schools.

Forty-three ringworm cases were investigated and advice given where no medical attention could be obtained.

Scabies cases, to the number of 34, were looked up and treatment suggested.

There were 33 neglected children visited, and their parents warned where necessary.

In some cases the Society for the Prevention of Cruelty to Children was called in.

Other infectious complaints to the extent of 223 were visited, and 62 cases of contagious impetigo were inspected and advice given.

Special powers are given by the new Children's Act, which comes into force in April, 1909, for the examination and cleansing of verminous children.

For this purpose it would be necessary to establish a cleansing station in the district, and this seems well worthy of consideration of the Committee.

Owing to the fact that a considerable amount of time was taken up with the medical inspection of school children, the routine work done by the Health Visitor was very much below the average in amount.

Another factor was that Miss Pountain left the service of the Council in October to take up an important post under the Durham County Council.

A temporary Visitor was appointed, but it takes some time for a stranger to work a new district like this economically as regards time.

*Table XIII.—Visits made in connection with  
the following :—*

Births ... ..	1,087
Births (Revisits) ... ..	90
Deaths (Infantile) ... ..	69
Diarrhœa (Infantile) ... ..	27
Whooping Cough ... ..	154
Ringworm ... ..	43
Chicken Pox ... ..	87
Scarlet Fever ... ..	88
Measles ... ..	195
Scabies ... ..	34
Impetigo ... ..	62
Mumps ... ..	30
Doubtful Sore Throats ... ..	184
Puerperal Fever ... ..	2
Dirty Children ... ..	141
House to House ... ..	16
Neglected Children ... ..	33
Infectious Disease (Notifiable) ... ..	223
Dirty Houses ... ..	8
Workshops and Workpeople... ..	15
Schools ... ..	65
	<hr/>
	2,653
	<hr/>



## Deaths in Public Institutions.

In the public institutions of this district there took place 260 deaths, apart from those in West Heath Hospital, which are dealt with separately.

Of these, 238 were of non-residents.

There were 129 males and 131 females.

In the Union Infirmary there were 185 deaths—11 less than in 1907; in Rubery Asylums there were 65, as to 73 in 1907; in Moseley Hall and St. Paul's Convent there were two deaths each.

Monyhull Hall Epileptic Colony, opened at the beginning of the year, had six deaths.

Of the deaths in the Union Infirmary, 32 were due to phthisis, 32 to heart diseases, 23 each to cancer and senile decay, 15 to wasting diseases of infants, 16 to lung diseases, and four to influenza.

In the Rubery Asylums, 20 deaths were from diseases of the heart, 12 from phthisis, and five from epilepsy.

Of the deaths in Monyhull Colony, two were due to epilepsy, one to cancer, and one to tuberculosis.

## Deaths of Residents in Outside Institutions.

There were 48 residents who died in institutions outside the district, and particulars of whose deaths were received from the respective Medical Officers of Health.

There were 32 males and 16 females, and of these two were under five years of age and seven were between five and 15 years.

Twenty deaths took place in the Queen's Hospital, nine in the General Hospital, nine in the County Asylums, and ten in other institutions, etc.

## Vaccination.

From the annual return prepared by the Vaccination Officer of the King's Norton Guardians, it is seen that of 1,934 births 1,472 children were vaccinated, a proportion of the whole of 76.1 per cent.

This is a fair average, but 7 per cent. less than in 1907.

This decrease is due to the increase of "conscientious objectors," who are becoming more numerous owing to the ease with which the certificates of exemption can now be obtained.

These numbered 181, compared with only 65 in 1907.

People naturally move in the line of least resistance, and when smallpox seems far off vaccination appears unduly near.

There were 141 children who died unvaccinated, 27 whose vaccination was postponed, and only 10 cases outstanding at the end of the year.

The work of the officers who administer this branch of preventive medicine has again been well carried out, and I am sure it is in no sense due to them that the results are not quite so good as in the previous year.

Table XIV.—Infectious Cases notified in Districts.

DISEASE.	Selly Oak	Bournbrook	Selly Park and Ten Acres	Bournville	Stirchley	Cotteridge	King's Norton	Northfield	Moseley	King's Heath	Rednal	Rubery District	Bartley Green District	West Heath	Holly Wood	Beoley	Selly Oak Infirmary	Rubery Hill Asylum	Moseley Hall Convalescent Home	Shenley Fields Cottage Homes	Totals
Scarlet Fever ...	55	94	57	19	73	54	29	4	43	56	1	3	—	2	1	1	6	—	2	—	500
Diphtheria and Membranous ...	1	43	6	4	13	16	6	—	20	11	—	—	—	—	—	—	—	—	—	—	120
Croup	—	1	—	—	1	5	2	—	1	5	—	—	—	—	—	—	—	4	—	—	19
Typhoid Fever...	—	17	10	3	6	2	3	2	2	2	—	—	—	—	—	1	3	1	—	—	57
Erysipelas	—	—	1	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	2
Puerperal Fever	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Small Pox	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Totals ...	61	155	74	26	93	77	40	7	66	74	1	3	—	2	1	2	9	5	2	—	698



## Infectious Disease Notification Act.

No less a number than 698 cases of infectious disease were notified under the Act, compared with 572 in 1907.

It is rather strange that this number is only one more than the previous record, which was 697 in the year 1902.

The increase for 1908 is due to the excessive prevalence of scarlet fever and of diphtheria, other diseases being about normal.

### Smallpox.

This disease is still altogether absent from the Midlands, and few cases occurred during the year in any part of the country.

The few cases that have cropped up in this country have been in seaport towns chiefly, and have been imported from abroad.

The combined smallpox hospital is quite ready for any cases that may turn up, but at present there seems little prospect of any trouble of that sort.

### Scarlet Fever.

As has been found on other occasions, the "crest" has lasted at least two years, and in the year under consideration 500 cases of scarlet fever were reported, compared with 437 in 1907.

This is the largest number reported since 1902, when 526 cases were known, with a population of three-quarters of the present one.

As regards the sex, 231 were males and 269 females, but there were eight male deaths to four female deaths, this being probably connected with the age distribution of the cases.

The average death rate—there being 12 deaths—was only 2·4 per cent., compared with 2·7 in 1907, the rate for males being 3·4, and that for females 1·5 per cent.

As was found during the last big epidemic, the disease was very prevalent in the King's Heath district in the first year, and in the second year invaded the Selly Oak and Stirchley areas.

King's Heath, which had 181 cases in 1907, had only 56 in 1908.

In Bournbrook there were 94 cases, in Selly Oak 55 cases, in Selly Park 57 cases, in Stirchley 73 cases, and in Cotteridge 54 cases.

No district was exempt, there being 29 cases in King's Norton, one case in Beoley, four in Northfield, and one at Hollywood.

Six cases were notified from the Union Infirmary and two from Moseley Hall.

The usual enquiries were made at all houses as to the milk supply, and in no instances could the slightest suspicion be attached to that article of diet as the possible means of infection.



Eighty of the infected families consisted of six persons, 72 of five, 65 of four, 45 of seven, 34 of eight, and 17 of nine persons.

There were, as extreme cases, seven families of 11 persons, four of 12, and one of 14 who were invaded by this disease.

Out of 364 houses infected with scarlet fever, 125 were of six rooms, 71 of five rooms, 26 of four rooms, and eight of three rooms.

There were, in addition, ten houses of eight rooms, seven of nine rooms, and six of ten rooms where the disease occurred.

The average family consisted of 5·7 persons, whereas the average house contained 4·5 rooms.

This was equal to 1·2 persons per room—considerably less than what the Registrar-General considers to be overcrowded.

Naturally pupils at all the elementary schools in the district in the more populous parts were attacked by the disease.

In the Stirchley school there were altogether 26 children attacked, in Bournville 14, in Cotteridge 14, in King's Heath and King's Norton 13, and in Dawlish Road 19.

Obviously when a disease is prevalent in a district the pupils at the local school are affected, even if the infection is not spread in the school itself.

Of the total cases notified, 124, or 25 per cent., were not of school age—57 had left school.

There was no death at ages under two years.

At ages 2-5 years there were five deaths, equal to a rate of 4·4 per cent.

There was one death at the age period of 15-25 years, and one at 25-65 years.

There were five deaths in the second quarter, three in the first, and three in the fourth quarter.

During the months of January and February the disease was not very prevalent, just over 20 cases being reported during each month.

In March and April there was a decided increase, 84 cases being notified.

In May and June the numbers were much the same; but in July and August there was a marked diminution, associated with the summer holidays in the elementary schools.

In September and October there was a large increase, with a fall in December.

Scarlet fever was most prevalent in King's Norton Ward in June, when nine cases were notified.

In Selly Oak Ward there were 35 cases notified in September and 27 in October; only 13 cases were known of in the first two months in this Ward.

In King's Heath the greatest prevalence was in March and April, when 21 cases were reported, whilst in May and also in November only two cases occurred.

In Moseley there were nine cases in January, but only one in May.

Stirchley Ward had its monthly maximum of 16 cases when nearly every Ward was at its lowest point, viz., in May; its minimum of five cases was in February.

In 65 families two members were affected, in 24 families three, in eight families four members, and in two families five.

A certain number of missed cases were found late in the disease, and no doubt a large number of anomalous cases were never discovered at all.

It is questionable, however, whether the amount of infection thrown out from the simple cases is at all large when compared with one typical patient with discharges and gland enlargement.

*Table XV.—Scarlet Fever Cases and Deaths at Various Ages.*

Years	...	All ages.	0-1	1-2	2-5	5-15	15-25	25-65	65 up
Cases	...	500	4	7	113	319	29	28	—
Deaths	...	12	—	—	5	5	1	1	—
Per Cent.	..	2·4	—	—	4·4	1·5	3·4	3·5	—

### Diphtheria.

The prevalence of this disease is probably the most serious feature in this report, as during the year 120 cases were reported, with 21 deaths, or an average of 17·5 per cent.

This is not, however, the largest number of cases that have been notified in one year, as in 1899, with a population of 52,076 persons, 126 cases were notified.

In this year the disease was of a milder type, as only 17 deaths took place.

In 1901 there were 111 cases reported also.

After that year there was a gradual decline until 1904, when only 30 cases were known, and 40 each in 1905 and 1906.

The progress of the disease is shown on Table XIII. from 1894, when only five cases were notified.

For some years now diphtheria has become more and more a disease of urban populations, and as we become more urbanised, this complaint is very likely to become more common among us.

It has been very prevalent in Birmingham for many years, during the last five years the average number of cases being more than 800 per year, with over 100 deaths.

When we consider the intimate connection that exists between the populations of the two places, it is to be expected that any disease that flourishes there is likely to gain a foothold here.

This is confirmed almost every year, when diseases like



Table XVI.—*Infectious Diseases, Notifications and Deaths since 1893.*

DISEASE.	YEARS.															
	1893	1894	1895	1896	1897	1898	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908
Smallpox ... { Cases { Deaths	—	12	7	—	—	—	—	—	—	6	10	3	1	—	—	—
Scarlet Fever { Cases { Deaths	264	197	142	306	312	151	88	126	186	524	399	352	239	226	437	500
Death rate, per cent. ...	1·1	·5	3·5	1·6	3·5	3·3	2·2	2·3	1·6	3·0	4·0	1·1	1·6	3·1	2·7	2·4
Hospital Cases ...	231	125	129	278	286	106	61	114	162	460	351	308	199	189	387	434
Percentage removed ...	87·	63·	90·	90·	91·	70·	70·	90·	87·	87·	88·	86·	83·2	83·6	88	86·
Diphtheria... { Cases { Deaths	10	5	31	59	92	38	126	85	111	73	48	30	40	40	59	120
Death rate, per cent. ...	2	2	10	16	12	6	17	12	12	13	5	6	6	5	8	21
Membranous Group Cases	20	40	32·2	27·1	13	15·8	13·5	14·1	10·8	17·3	10·4	20	15	12·5	13·5	17·5
Typhus Fever { Cases { Deaths	—	—	—	3	1	—	3	6	—	—	—	—	—	—	—	—
Estimated Population ...	29,884	30,977	34,127	38,117	42,700	48,500	52,076	54,958	57,120	60,779	63,717	66,667	69,630	72,608	75,600	78,608
Typhoid Fever { Cases { Deaths	17	10	8	6	15	27	45	45	37	26	12	10	11	11	12	19
Death Rate, per cent. ...	4	—	—	3	1	2	6	12	—	7	1	2	—	1	5	6
Puerperal Fever { Cases { Deaths	23·5	—	—	50	6·6	8·4	13·3	26·6	—	27	8·3	18·2	—	9·1	41·7	31·5
Erysipelas { Cases { Deaths	8	—	1	4	2	2	—	2	5	7	5	4	5	2	4	2
Measles ... { Cases { Deaths	4	—	—	2	—	1	—	—	—	5	—	3	5	—	1	1
Whooping Cough...Deaths	47	26	37	34	41	27	29	47	66	61	42	41	70	69	60	57
Diarrhoea&Dysent'yDeaths	6	—	1	—	—	—	—	—	—	—	2	4	—	2	4	2
	1	9	1	7	12	16	1	22	12	4	7	6	20	6	18	3
	7	5	12	13	13	4	7	7	33	17	6	18	10	17	12	8
	12	1	2	—	16	19	16	12	17	13	12	16	11	20	2	15



measles and whooping cough, which usually begin their work of devastation in the city, rapidly spread out here and decimate the attendance of our schools.

Whilst the latter diseases spread like wildfire and rapidly burn themselves out for want of fresh material, diphtheria moves in a slow and insidious fashion. Notwithstanding this, diphtheria is also spread by personal infection, independent of sanitary conditions.

The slow spread of diphtheria must be due to its being less infectious. One child with measles in a class will usually at once infect nearly all the susceptible children in the class, whereas a child with diphtheria might attend school for weeks and not infect anyone.

The trouble with diphtheria is that in addition to mild cases which are not discovered, there are carriers; that is, persons who, without taking the complaint themselves, may for months carry the germs in their throats, and pass them on to others.

It is probable that the infection in diphtheria is not scattered broadcast around a patient, but is chiefly spread by kissing, exchanging sweetmeats, or by the mixed sucking of pens and pencils.

Of the 120 cases notified in the district, 52 were in Selly Oak Ward, 30 in Stirchley, and 21 in Moseley.

There were 43 cases in Bournbrook district, 16 in Cotteridge, 13 in Stirchley, and 11 in King's Heath.

There was only one case in Selly Oak proper, six in Selly Park, and six in King's Norton.

No case was reported from any institution within the district.

There were not more than 10 cases reported in the first four months of the year; there was an increase in May and June, a fall in July, and excessive prevalence in the last quarter of the year.

In April and May there were 10 cases in Selly Oak Ward, and very few in any other part of the district.

The main epidemic occurred in the last three months of the year, a total of 59 cases being notified, with a mortality of no less than 13.

Of the total number of cases notified, two were under one year of age, nine were between two and five years, 98 between five and 15 years, and four over 25 years.

Both the infants died, but in neither of these cases was the diagnosis confirmed microscopically.

Four children out of nine, at ages two to five years, died, and 15·3 per cent. of those from 15 to 25 years succumbed. Of the 120 cases notified, 58 were males and 62 females.

There were 11 male and 10 female deaths, giving a fatality rate of 19 for males and 16 for females, so that both in scarlet fever and diphtheria the females attacked have fared decidedly better than the males.

During the last quarter, this district had the unenviable position of having the highest death rate from diphtheria in the country.

As so often emphasised, it must be taken into account that, when dealing with small numbers, large variations are bound to occur.

This quarter is the one in which diphtheria is most prevalent, and atmospheric conditions appear to have been particularly favourable.

During the whole of the quarter, with very little intermission, notifications came pouring in from nearly every part of the district.

There were 20 cases from Bournbrook, 14 from Cotteridge, eight from Stirchley, and eight from Moseley.

There were 18 cases under five years of age and eight over 15, leaving 33 at school age.

Children attending 10 elementary schools were infected, and five who went to private schools.

Four infected households procured milk from the same dairy farm within the city boundaries, but although full inquiries were made by the city officials, and swabs taken from the workers, no infection could be put down to this source.

There were four cases attending the Raddle Barn School, two of them being senior boys from the annexe.

During the preceding part of the year one or two cases had been notified at intervals from the infant school at Raddle Barn.

Four cases attended Stirchley School and four went to Tiverton Road, but were not restricted to any particular class or department.

In three schools there were two cases each.

The most serious outbreak was in the Cotteridge Infant School, where 11 cases were notified in three months.

This area has been remarkably free from diphtheria, as during the last four years only one case has been reported. Such a population is unprotected by previous attacks, and is apt to fall easily before the infection of a newly-introduced disease.

It has been found in this district that diphtheria each year affects some particular area or village.

In 1902 the disease was very prevalent in King's Heath.

Some years ago half the cases occurred in Northfield; then Bournville had its turn.

Since then all these areas have been very free from it.

In Selly Oak Ward the annual number of cases has been rising steadily since 1904, when only five cases were recorded, the maximum being reached in the present year.

Whenever a district has had an epidemic there has been the usual outcry against the "drains," which, like the poor, are always with us.

In the Cotteridge outbreak the first case was reported on the 21st of October, the second on the 23rd, and the fourth on the 31st.

These were all boys, and in the same class at the infant school.

On the first of November a girl was notified, and after that there was an interval of 12 days, when a boy was reported, both from the same school.

On the 13th a girl from the senior school was notified, and on the 25th and 28th two more boys from the infant school.

On the 9th and 10th of December a boy and a girl were reported, and on the 14th another boy, all infant scholars.

There were two pupils at the senior school notified about the same time.



No other children were affected during the remainder of 1908, and since that time the disease has been quiescent.

During the epidemic the usual means of prevention in force in the district were carried out.

All houses where notified cases occurred were visited, and full instructions given.

The disease was of a peculiarly virulent form, and no less than 13 deaths took place.

This notwithstanding the fact that antitoxin is freely provided by the Council, and every effort has been made for several years to get medical men to use it in all cases suggestive of diphtheria.

That full advantage has been taken of this provision is proved by the fact that no less than 220 doses, or 440,000 units, of anti-diphtheria serum was given out during the year.

This is twice the amount provided in 1907.

The great advantage of the serum treatment of this disease is admitted on all hands, but in its use it is necessary to inject patients early in order to get the best results.

Any damage that has been done by the toxin in the body of the patient, prior to injection, cannot be cured by the serum.

From this fundamental fact it follows that any delay in injection of a patient with serum may have the most disastrous consequences.

In 40 cases in the last quarter, notification was only received on an average five days after onset.

This was usually due to neglect of the parents to call in medical advice, although handbills were circulated at intervals in infected areas.

In one or two cases the disease was not recognised at first by the medical man, and in one family in Selly Oak five cases consequently occurred, with two deaths.

All affected schools were regularly visited, handbills sent out, and all doubtful sore throats looked up, and swabs taken.

Although a large number of swabs were taken from suspicious school cases, in none of these was the typical bacillus found.

A child in the Selly Park area died suddenly from diphtheria before a doctor could be called in. In this case the diagnosis was helped by the fact that another child, at a house where the first one had been staying, "failed" with the disease.

About half the cases notified were removed to the infectious Hospital for treatment, in the other instances home isolation being sufficient.

The Cotteridge Infant School was closed for a month because of the prevalence of diphtheria in the school.

During the year the disease did not show any great amount of infectiousness, as in only 12 instances were there two cases, in four families three cases, in two families four cases, and in one family there were five cases.



*Cases of Diphtheria Notified (from October 1st.  
to December 31st, 1908).*

WARD.	DISTRICT.	0-1	1-2	2-5	5-15	15 up	Total
King's Norton	Rubery ...	—	—	—	—	—	—
	King's Norton	—	—	—	3	—	3
Northfield ...	Bartley Green	—	—	—	—	—	—
	Northfield ...	—	—	—	—	—	—
Selly Oak ...	Tenacres ...	—	—	—	—	—	—
	Selly Oak ...	—	—	—	—	—	—
	Selly Park ...	—	—	—	1	1	2
	Bournville ...	—	—	—	—	—	—
	Bournbrook ...	—	—	7	11	2	20
King's Heath ...	... ..	—	—	1	1	—	2
Moseley ...	... ..	—	—	—	4	4	8
Stirchley ...	Cotteridge ...	1	—	5	8	—	14
	Bournville ...	—	—	—	2	—	2
	Stirchley ...	1	—	3	3	1	8
	Totals ...	2	—	16	33	8	59

*Table XVII.—Diphtheria Cases and Deaths at Age Periods.*

Years ...	All ages.	0-1	1-2	2-5	5-15	15-25	25-65
Cases ...	120	2	—	9	98	7	4
Deaths ...	21	2	—	4	15	—	—
Per cent....	17·5	100	—	44·4	15·3	—	—

## Enteric or Typhoid Fever.

There were 19 cases of enteric, commonly known as typhoid fever, compared with 12 in 1907, which was about the average number for the previous five years.

The disease was most prevalent about 1900, when 45 cases were reported, since which time it gradually went down until 1903.

The reason for a slight increase in 1908 was that four cases occurred in Rubery Asylums, where it has been quiescent since 1905, when five cases were reported.

There were six deaths of residents, and two deaths of patients in the Rubery Asylums.

Five members of one family—all adults—were infected in the Cotteridge, and two of these cases proved fatal.

The first one attacked was a young man, who worked at an hotel in King's Heath. The cause of infection, as usual, could not be traced, but there was a possibility of it being due to raw shellfish.

This was probably the source of infection in several instances, and was undoubtedly so in one instance in Moseley.

In this case the patient and a friend had both partaken of oysters in Birmingham at the same time. They both developed the disease soon after, and both attacks proved fatal.

One fatal case took place in Selly Oak, and one other in the Cotteridge district.

## Erysipelas.

There were 57 notifications of erysipelas received, compared with 60 in 1907. Of these, 17 were in Bournbrook, 10 in Selly Park, and six in Stirchley.

There were two fatal cases, giving a death rate of 3·5 per cent.

Three cases were reported from the Union Infirmary, and one from Rubery Asylum. No special interest attaches to these cases, none of which were apparently connected.

## Puerperal Fever.

Only two cases of puerperal fever were notified—two less than in 1907. One of these cases was in Northfield and the other in Selly Park district.

The first of these patients succumbed to the disease.

The patient in Selly Park was attended by a registered midwife.

In this case the usual precautions were taken, the midwife reported to the county authority, and not allowed to return to her duties until after thorough disinfection. The Northfield case was not attended by a midwife.

## Black Smoke.

There were 157 smoke observations taken from chimneys within the district, compared with 417 in 1907.

A register of all observations taken has been started in the office, so that comparisons can be made at any time.

Most of the observations taken during the year were made in the Selly Oak district, especially in connection with the cycle works.



Notices were served by order of the Committee in one or two instances.

The amount of black smoke produced in the lower part of Bournbrook is not much less than it was in 1907, one stack at least being somewhat worse than it was in that year.

### **Milk Production.**

In order to carry out the "model clauses" on tuberculosis in the Council's Act, a veterinary surgeon was appointed early in the year.

The Council were fortunate in obtaining the services of Mr. Taylor, M.R.C.V.S., of Moseley, who for many years has made a special study of the disease of dairy cattle, with special reference to tuberculosis. These duties, as regards the Health Committee, are set out in his report, and his assistance has been of great value to us in several cases. In a large scattered area like this one it takes a considerable amount of time to get round the sheds and to inspect all the cows. From his experience so far, he estimates that probably 5 per cent. of our cows may have tubercle of the udder, and probably 40 per cent. have other forms of tubercle.

The housing of the cows, in many cases, still admits of improvement, he considers, and it seems obvious that it is little use stamping out tuberculosis unless cows are afterwards housed under hygienic conditions.

The question of cleanly milking is mentioned, and there is not the slightest doubt but that this is more important than any other feature connected with the trade.

The recent interim report of the Royal Commission gives it forth that one important source of tubercle bacilli in milk is the dung which enters it.

The suggestion of rules as to milking is a good one, although advice on this matter has been circulated among dairy farmers on previous occasions.

The routine testing of dairy cows by tuberculin is performed by many authorities under certain conditions, and it would be worthy of consideration by this Council. A number of herds have in this way been quite freed from tuberculosis in this part of the country.

During the year two samples of milk were taken from cows with udder disease, but in neither case was the milk found to contain tubercle bacilli.

The owners were induced to have slaughtered two cows in an advanced stage of "wasting," both of which were tuberculous.

### **VETERINARY SURGEON'S REPORT TO MEDICAL OFFICER OF HEALTH FOR YEAR 1908.**

Dear Sir,—

I have much pleasure in submitting to you my report on the work done for the Health Committee for the past twelve months.

The duties I was appointed to carry out were:—  
(a) To report quarterly as to the condition of dairies and cowsheds.



- (b) To inspect and report upon the conditions of suspected cows when called upon to do so.
- (c) On the discovery of tubercle bacilli in milk, to examine cows in the infected cowshed.
- (d) To examine diseased meat when called upon to do so.
- (e) To give evidence in the event of any legal proceeding being taken requiring my attendance.

Frequent attendances and reports have been made by me to the Health Committee on the conditions of dairies and cowsheds.

There are at present 162 registered cowsheds in the district.

I have made 52 detailed inspections of cows and cowsheds during the twelve months, and additional visits for other purposes of supervision, which brings the number of visits made up to 110.

Several samples of suspected milk have been taken, but no definite case of tuberculosis of the udder has been determined by bacteriological examination.

I have no doubt, however, there are a great number, probably 5 per cent., of the cows suffering from the disease in the udder, and that a very much larger percentage, probably 40 per cent., are affected with the disease in other forms.

I am of the opinion that urgent reform is still necessary in the housing of the cows, particularly in outlying districts, methods of cleanliness adopted in milking, and more extended powers for veterinary detection of tuberculosis.

There not having been a systematic veterinary inspection and supervision until twelve months ago, the progress for the first year will show only a few definite results at present; but there is a growing desire evident on the part of the majority of farmers to allow themselves to be educated as to the proper system of cow-keeping and milk supply.

In some cases, however, there seems to be an obstinate resistance to any method of reform which may involve a commercial loss, however slight, for the time being, and a total disregard for public health.

I would suggest that definite bye-laws be distributed as to the grooming of cows, cleansing the udders and teets before milking, the wearing of clean smocks, more frequent removal of manure, and white-washing of sheds.

The powers of the new Act in regard to tuberculosis are not as yet fully recognised by the majority of farmers, and there has not been the number of suspicious udders reported as was expected. It would be advisable to send a copy of the clauses to every cow-keeper, so that the penalties for not reporting would be more fully realised.

It would be of considerable assistance in the detection of the disease, when not apparently existing in the udder, if a system of free testing with tuberculin could be adopted, as in other districts, by which the

farmer could, without cost to himself, ascertain with certainty whether the disease exists in any of his cattle.

This would be an inducement to the farmer to allow of the disposal of affected animals by having them isolated, the milk properly sterilised before consumption, and the animal eventually fed and slaughtered under inspection.

These conditions could be laid down previous to the test being carried out, and would, I am convinced, be accepted in the majority of cases.

The third report of the Commission on human and animal tuberculosis, published in January of this year, states:—"That a cow, if suffering from tuberculosis in any form, and not having the disease actually diagnosable in the udder, can, nevertheless, yield tuberculosis milk."

This points to the urgent necessity for additional powers in dealing with the detection and examination of the disease, as the present law only enables us to act when tuberculosis of the udder is diagnosed.

Great assistance has been rendered by the Medical Officer of Health, the Chief Inspector, and the other officers of the Health Department in carrying out my work, and I have every confidence that in the ensuing year our combined efforts to reduce the number of cases in existence will have the desired effect.

I have given my opinion on diseased meat in several instances, and assisted the Meat Inspector generally when called upon to do so.

FREDK. J. TAYLOR, M.R.C.V.S.

## **West Heath Infectious Diseases Hospital.**

During the year there were admitted to hospital a total of 495 patients, being the greatest number ever admitted in one year.

In 1902 there were 462 patients, consisting of those admitted as scarlet fever cases only.

Of the patients, 433 were admitted as scarlet fever, 60 as diphtheria, and two as typhoid fever.

### **Scarlet Fever.**

Of the 433 scarlet fever patients admitted, 196 came from Selly Oak Ward, 125 from Stirchley, 45 from King's Heath, 28 from King's Norton, and 27 from Moseley.

Six cases were removed from Selly Oak Union and two from Moseley Hall.

There were ten deaths, compared with nine in 1907, and the rate was the same, namely, 2·3 per cent. This is quite a satisfactory rate, especially when we consider the severity of a number of the cases admitted. No less than five patients died



Table XVIII.—West Heath Hospital Returns.

Year	Number of Cases	Scarlet Fever	Smallpox	Diphtheria	Number of Deaths	Balsall Heath	Harborne	Edgbaston	Birmingham	Droitwich	Bromsgrove	Barnt Green	Tardebigge	Belbroughton	Stoke Prior	Redditch	Hagley	Alvechurch	Billesley Common	Hopwood	Quinton	Smethwick	Bentley	Clent	Halesowen	Weatheroak Hill	Lickey End	Stourbridge	St. Paul's Convent Branch, near Horsefair, Bristol	St., Birmingham.
1889	156	156	—	—	3	66	9	1	12	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1890	371	371	—	—	13	153	48	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1891	163	156	7	—	a3	63	15	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1892	106	106	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1893	256	243	13	—	b1	—	—	—	—	7	4	1	1	2	14	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1894	180	146	34	—	c5	—	—	—	—	—	4	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—
1895	147	136	11	—	d5	—	—	—	2	1	3	—	—	—	—	2	—	—	—	2	—	—	—	—	—	—	—	—	—	—
1896	288	288	—	—	4	—	—	—	—	—	6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1897	306	306	—	—	9	—	—	—	—	—	1	—	4	—	—	2	—	3	—	1	4	1	2	2	1	—	—	—	—	—
1898	127	127	—	—	5	—	—	—	—	—	1	—	—	—	—	1	2	—	—	—	—	—	—	11	2	—	1	3	—	—
1899	63	63	—	—	2	—	—	—	—	—	—	—	—	—	—	2	—	—	—	—	—	—	—	1	—	—	—	—	—	—
1900	119	119	—	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3	—	—	—	—	—	—
1901	163	163	—	—	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1
1902	462	462	—	—	15	—	—	—	—	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1903	353	352	—	1	13	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1904	308	305	—	3	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1905	216	199	—	16	8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1906	209	189	—	19	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1907	418	387	—	31	12	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—	—	—
1908	495	433	—	60	21	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Totals	4906	4712	65	130	127	282	72	1	14	8	21	1	5	2	14	6	3	4	2	1	5	2	2	17	4	—	1	1	3	1

a 2 Scarlet Fever, 1 Smallpox. b Scarlet Fever. c Scarlet Fever, 4 Smallpox. d Scarlet Fever. e Scarlet Fever.



within a day or two of admission, and were in quite a hopeless state when they arrived.

Four deaths were due to the extreme virulence of the disease in the early stage, two were due to cardiac inflammation, three to kidney affections, and one to lung trouble.

There were 86 per cent. of all notified cases removed to hospital, this being the usual average. The time of isolation was much as usual, being shorter in the summer and longer in the winter.

Forty-nine patients were kept in hospital for less than five weeks, 53 for five to six weeks, 135 from six to seven weeks, 74 from seven to eight weeks, 94 from eight to eleven weeks, and 21 over that time.

One child had to be kept in hospital for over six months, and even then her ear discharges still continued. There were 14 patients discharged from the hospital who apparently caused return cases within four weeks of their going out.

This is an average of 3·2 per cent.—rather more than in 1907, when it was 2·5 per cent.

Of these infectious cases, only three had been in hospital less than seven weeks, four having been in hospital seven to eight weeks, two from eight to nine weeks, and four over nine weeks, including one patient who had been isolated for not less than 14 weeks.

If we take the cases isolated for under seven weeks, we find that only 1·2 per cent. caused return cases, whereas in patients kept in hospital over that time 5·8 per cent. were apparently infectious.

In nearly all instances the discharged patient apparently only became infectious after starting sore throat, enlarged glands, or discharges from the nose or ears.

These conditions came on when the patients had been out of hospital for some time, and were due to the effect of different surroundings, clothing, etc. Only one return case came within a week of discharge of the infecting person, five within two weeks, and two between two and three weeks.

In the majority of cases the patients, when in hospital, had suffered from sore throats, enlarged glands, and discharges; but in one or two instances these complaints only came on after the patients had been at home some time.

It appears as if these infecting patients act as carriers of the germs, the infectiousness lighting up again when some inflamed condition of the throat or nose supervenes.

One child, who had no complications, had to be treated for itch, contracted at its home. This child was sent home quite cured, but began to scratch its hands again, and caused ulcers to form, resulting in a return to infectious condition. It is generally admitted that the return case somewhat discounts the advantage of fever hospitals, and in some few places patients are treated in glass cubicles, so as to be isolated there from the others.

It is well known that mild uncomplicated cases of scarlet fever do much better at home than in hospital, but more severe types derive great benefit from hospital treatment.

Fever hospital wards contain septic infection in varying amounts, according to the number and type of the cases there,

and this infection is passed on from one patient to another, thus causing the complications which affect the throat, ear, nose, and other parts.

The cubicle system has been introduced to obviate this cross-infection which takes place, and the Committee have had the matter under consideration.

Inspections have been made of the systems in vogue at the South-Western Fever Hospital, London, and also at Walthamstow. A visit was also made by myself to the Pasteur Hospital, Paris, where this system was first started.

There are many advantages attached to it, but it is very expensive to erect and rather costly to work, if used generally.

For the isolation of doubtful cases, or where more than one infectious disease is present at the same time, the provisions of one or two cubicles per ward would be distinctly of benefit, and the Committee are having plans prepared on these lines.

From the early days, when no patients went to the fever hospital, to the present, when 90 per cent. go, is from one extreme to the other, and I think that it would be a gain in every way if more children could be isolated at home.

It is proved in most cases where children are treated at home that they have few complications, do not infect other members of the family, and get clear of infection in a week or two less than when in hospital. If some arrangement could be made for the home treatment of such children, there would be a saving of many complications, and a shortening of the time of isolation.

Some restriction of the visiting of parents to the hospital would be advisable, as there are some drawbacks to the present system.

## Diphtheria.

There were 60 cases admitted—about twice the number in 1907.

Of these, 25 were from Selly Oak Ward, 23 from Stirchley, and eight from Moseley.

Ten deaths occurred, or 16·6 per cent. of the whole, thus showing the great virulence of the disease.

Most of the patients had been ill for several days before admission, and no less than four died in one day, seven within two days, and eight within three days. These patients were mostly moribund when admitted, and died from acute toxic poisoning, which had taken place before the antitoxin had been administered.

In these cases no treatment could be of any avail.

There were 19 patients kept in hospital from three to four weeks, 12 from four to five weeks, and 10 from two to three weeks.

No patient was discharged until free from diphtheria bacilli, as demonstrated by culture and the microscope.

Most of the deaths were finally due to vomiting and syncope, caused by degeneration of the heart. No fatal case of laryngeal diphtheria was admitted, the type of disease being remarkably consistent.



## Enteric or Typhoid Fever.

Two cases of enteric fever were admitted, the patients being a mother and daughter from the Cotteridge. The mother, who was practically moribund on admission, died within a day or two, the other patient recovering.

The work during the year, owing to the number of patients and severe type, was very arduous, but the staff, which has been increased, rose to the occasion, and did its work in a most satisfactory manner.

I am quite confident that there is not a harder-working staff in any hospital, from the Matron downwards.

Dr. Hollinshead has been of great assistance, both in consultations and in taking duty during absence on leave.

## Meat Inspection.

A circular was sent round to the meat traders in the district asking them to notify to the Health Department all meat showing signs of disease or unsoundness. If this was done, it was pointed out, no legal proceedings would be taken if any meat was voluntarily surrendered to the inspector for destruction. This was taken advantage of largely; in only two cases was a seizure made, and the cases carried to the courts. Altogether, 13cwt. 3qrs. 7½lbs. of meat of various sorts was condemned. This includes over 9cwts. of pork, 2cwts. of hams, and 1½cwts. of beef offal.

There were four whole carcasses of pigs and 12 heads condemned, chiefly for tuberculosis.

On a Saturday evening a seizure was made in Selly Oak of pickled and fresh meat, which was badly decomposed. The dealer in this case was fined in all £15 and costs.

The following is a summary of the meat condemned:—

Class of Meat, &c., condemned.	Cwts.	Weight.	
		Qts.	lbs.
Beef ... ..	—	1	10½
Beef Offal ... ..	1	2	5
Pork (four whole carcasses, 12 pigs' heads, necks, and offal)	9	1	13
Hams (12) ... ..	2	0	16
Mutton ... ..	—	1	19
	—	—	—
Total ... ..	13	3	7½
	—	—	—

Table A.—For Whole District.

YEAR.	Population estimated to middle of each year.	BIRTHS.		DEATHS UNDER ONE YEAR OF AGE.		DEATHS AT ALL AGES. TOTAL.		Total Deaths in Public Institutions in the District.	Deaths of Non-Residents registered in Public Institutions in the District.	Deaths of Residents registered beyond District.	DEATHS AT ALL AGES. NETT.	
		Number.	Rate.*	Number.	Rate per 1000 Births registered.	Number.	Rate *				Number.	Rate.*
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1898	48,500	1332	27.46	171	128.37	652	13.44	141	113	—	539	11.11
1899	52,076	1546	27.73	187	120.95	755	13.54	182	118	—	637	11.4
1900	54,958	1651	27.51	215	130.22	921	15.36	226	189	1	733	12.21
1901	57,120	1773	31.03	227	128.03	888	15.54	227	160	—	728	12.74
1902	60,779	1832	30.14	201	110.2	836	13.75	243	180	38	694	11.25
1903	63,717	1755	27.5	173	98.5	793	12.44	202	140	32	653	10.24
1904	66,667	1885	28.4	192	102	895	13.42	255	196	45	735	11.02
1905	69,630	1784	25.62	163	91	857	12.3	276	235	48	670	9.62
1906	72,608	1859	25.6	196	105	973	13.3	289	249	33	724	9.97
1907	75,600	1849	24.45	195	105	982	13.0	279	229	62	815	10.78
Averages for } years 1898-1907 }	62,165	1226	27.34	192	111.92	835	13.60	232	180	25	692	11.03
1908	78,608	1929	24.54	167	86.5	1038	—	283	238	48	848	10.78

\* Rates calculated per 1000 of estimated population.

NOTE.— The deaths included in Column 7 of this table are the whole of those registered during the year as having actually occurred within the district. The deaths included in Column 12 are the number in Column 7 corrected by the subtraction of the number in Column 10 and the addition of the number in Column 11.



Table B.

NAMES OF LOCALITIES	YEAR.	1. NORTHFIELD.				2. KING'S NORTON.				3. BEOLEY.				4. PUBLIC INSTITUTIONS.			
		Population estimated to middle of each year.	Births Registered.	Deaths at all Ages.		Population estimated to middle of each year.	Births Registered.	Deaths at all Ages.		Population estimated to middle of each year.	Births Registered.	Deaths at all Ages.		Population estimated to middle of each year.	Births Registered.	Deaths at all Ages.	
		<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>	<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>	<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>	<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>
1898	...	17,342	630	216	77	30,432	694	290	85	726	8	5	1	—	—	141	8
1899	...	19,842	670	241	96	35,182	860	326	86	726	16	6	—	—	—	182	5
1900	...	21,252	723	289	98	38,013	919	432	111	735	9	12	1	—	—	37	5
1901	...	20,767	818	267	109	35,788	940	451	109	565	15	10	1	—	—	227	10
1902	...	22,962	883	292	94	36,831	938	384	103	565	11	9	—	—	—	243	15
1903	...	23,707	851	285	88	38,800	894	364	84	565	10	4	1	—	—	234	5
1904	...	24,620	893	308	91	40,653	979	418	100	565	13	9	1	—	—	300	18
1905	...	25,962	856	292	90	42,134	911	369	71	565	17	9	2	—	—	324	13
1906	...	27,213	909	302	99	43,252	931	415	96	565	19	7	1	—	—	322	18
1907	...	28,516	923	367	120	44,741	906	441	74	565	20	7	1	—	—	341	9
Averages of years 1898 to 1907		23,218	815	285	96	38,582	897	389	91	614	13	7	—	—	—	235	106
1908	...	29,694	925	323	71	46,459	987	518	93	565	17	7	3	—	—	331	16

NOTES.—(a) Deaths of Residents which occurred in public institutions beyond the districts are included in sub-columns *c* of this table, and those of non-residents registered in public institutions in the district excluded. Under the head of "Public Institutions," however, all deaths are included.  
(b) Deaths of residents which occurred in public institutions, whether within or without the district, are allotted to the respective localities, according to addresses of the deceased.

Table C.—Cases of Infectious Disease notified during the Year 1908.

NOTIFIABLE DISEASE.	CASES NOTIFIED IN WHOLE DISTRICT.							TOTAL CASES NOTIFIED IN EACH LOCALITY.						NUMBER OF CASES REMOVED TO HOSPITAL FROM EACH LOCALITY.							
	At all Ages	AT AGES—YEARS						Selly Oak (1)	King's Norton (2)	Northfield (3)	Beoley (4)	Stirchley (5)	Moseley (6)	King's Heath (7)	Selly Oak (1)	King's Norton (2)	Northfield (3)	Beoley (4)	Stirchley (5)	Moseley (6)	King's Heath (7)
		0-1	1-2	2-5	5-15	15-25	25-65														
Smallpox ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cholera ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Diphtheria ...	120	2	—	9	98	7	4	—	6	—	—	30	21	11	52	2	—	—	23	8	2
Membranous Croup	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Erysipelas ...	57	3	2	3	5	6	34	4	3	3	1	8	2	2	38	—	—	—	—	—	—
Scarlet Fever ...	500	4	7	113	319	29	28	—	35	4	1	139	45	56	220	28	3	1	125	29	45
Typhus Fever ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enteric Fever ...	19	—	—	—	3	3	13	—	4	—	—	6	1	6	2	—	—	—	2	—	—
Relapsing Fever ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Continued Fever ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Puerperal Fever ...	2	—	—	—	—	—	2	—	—	1	—	—	—	—	—	—	—	—	—	—	—
Plague ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Totals ...	698	9	9	125	425	45	81	4	48	8	2	183	69	75	313	30	3	1	150	37	47



# Schedule A.

## Deaths Registered from all Causes, 1908.

No.	DISEASES.	AGES.											ALL AGES.				
		0-	1-	5-	10-	15-	20-	25-	35-	45-	55-	65-		75-	85-		
1	Small-pox ... (a) Vaccinated (b) Unvaccinated (c) No Statement	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2	Measles ...	1	1	1	4	—	1	1	—	—	—	—	—	—	—	3	12
3	Scarlet Fever	—	5	1	—	—	—	—	—	—	—	—	—	—	—	—	—
4	Typhus Fever	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
5	Epidemic Influenza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
6	Whooping Cough...	3	1	2	—	2	1	3	4	2	4	8	3	2	—	35	8
7	Diphtheria	3	4	—	—	—	—	—	—	—	—	—	—	—	—	21	6
8	Enteric Fever	2	4	13	2	—	1	1	—	1	1	—	—	—	—	—	—
9	Asiatic Cholera	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
10	Diarrhoea, Dysentery	6	4	1	—	—	—	1	—	1	—	—	—	—	—	13	2
11	Epidemic Enteritis	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
12	Other Allied Diseases	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
13	Hydrophobia	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
14	Glanders	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
15	Tetanus	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
16	Anthrax	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
17	Cowpox	1	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
18	Syphilis	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	CARRIED FORWARD	18	19	18	6	2	3	6	8	4	5	8	3	2		102	

SCHEDULE A.—DEATHS REGISTERED FROM ALL CAUSES, 1908.—(Continued).

No.	DISEASES.	AGES.												ALL AGES.	
		0-	1-	5-	10-	15-	20-	25-	35-	45-	55-	65-	75-		85-
19	Gonorrhoea	18	19	18	6	2	3	6	8	4	5	8	3	2	102
20	Phagedæna	—	—	—	—	—	—	—	—	1	—	—	—	—	2
21	Erysipelas	—	—	—	—	—	—	—	—	—	—	—	—	—	—
22	Puerperal Fever	1	—	—	—	—	—	1	—	—	—	—	—	—	2
23	Pyæmia	—	—	—	—	—	—	1	—	—	—	—	—	—	1
24	Infective Endocarditis	—	—	—	—	—	—	1	—	—	—	—	1	—	3
25	Other Allied Diseases	—	—	—	—	—	—	—	—	—	—	—	—	—	—
26	Malarial Fever	—	—	—	—	—	—	—	—	1	—	—	—	—	1
27	Rheumatic Fever	—	—	—	—	—	—	—	—	—	—	—	—	—	—
28	Rheumatism of Heart	—	—	—	1	—	—	—	—	—	—	—	—	—	—
29	Tuberculosis of Brain	—	3	1	—	—	—	—	—	—	—	—	—	—	—
30	Tuberculosis of Larynx	2	—	—	—	—	—	—	—	—	—	—	—	—	—
31	Phthisis	—	—	1	—	1	5	21	11	8	3	2	—	—	1
32	Abdominal Tuberculosis	—	2	—	—	—	—	—	—	—	—	—	—	—	6
33	General Tuberculosis	1	1	—	—	—	1	—	1	1	—	—	—	—	1
34	Other forms Tuberculosis	—	—	1	1	—	—	—	—	—	—	—	—	—	52
35	Other Infective Diseases	—	—	—	—	—	—	—	—	—	—	—	—	—	4
36	Thrush	—	—	—	—	—	—	—	—	—	—	—	—	—	5
37	Actinomycosis	—	—	—	—	—	—	—	—	—	—	—	—	—	2
38	Hydatid Diseases	—	—	—	—	—	—	—	—	—	—	—	—	—	—
39	Scurvy	—	—	—	—	—	—	—	—	—	—	—	—	—	—
40	Other Diseases due to Altered Food	—	—	—	—	—	—	—	—	—	—	—	—	—	—
41	Acute Alcoholism	—	—	—	—	—	—	—	—	1	—	—	—	—	1
42	Chronic Alcoholism	—	—	—	—	—	—	—	1	—	—	—	—	—	1
43	Chronic Industrial Poisonings	—	—	—	—	—	—	—	—	—	—	—	—	—	—
44	Other Chronic Poisonings	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	CARRIED FORWARD	24	25	21	8	3	9	30	24	16	8	10	4	2	184



SCHEDULE A.—DEATHS REGISTERED FROM ALL CAUSES, 1908.—(Continued).

No.	DISEASES.	AGES.											ALL AGES.		
		0-	1-	5-	10-	15-	20-	25-	35-	45-	55-	65-		75-	85-
45	Osteo-arthritis	24	25	21	8	3	9	30	24	16	8	10	4	2	184
46	Gout	—	—	—	—	—	—	—	—	1	—	1	1	—	3
47	Cancer	—	—	—	—	—	1	2	3	14	12	19	5	—	56
48	Diabetes Mellitus...	—	—	—	—	1	—	1	—	—	4	5	—	—	11
49	Purpura Hæmorrhagica	1	—	—	—	—	—	—	—	—	—	—	—	—	1
50	Hæmophilia	—	—	—	—	—	1	1	—	1	2	—	—	—	7
51	Anæmia	—	—	—	—	—	—	—	—	—	—	—	—	—	—
52	Lymphadenoma	—	—	—	—	—	—	—	—	—	—	—	—	—	—
53	Premature Birth	32	—	—	—	—	—	—	—	—	—	—	—	—	32
54	Injury at Birth	1	—	—	—	—	—	—	—	—	—	—	—	—	1
55	Debility at Birth	10	—	—	—	—	—	—	—	—	—	—	—	—	10
56	Atelectasis	2	—	—	—	—	—	—	—	—	—	—	—	—	2
57	<i>Congenital Defects</i>	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Heart Disease...	8	—	—	2	—	—	—	—	—	—	—	—	—	8
	Deformitis	4	—	—	—	—	—	—	—	—	—	—	—	—	6
58	Want of Breast Milk	—	—	—	—	—	—	—	—	—	—	—	—	—	—
59	Atrophy, Debility, Marasmus	34	1	—	—	—	—	—	—	—	—	—	—	—	35
60	Dentition	—	3	—	—	—	—	—	—	—	—	—	—	—	3
61	Rickets	—	1	—	—	—	—	—	—	—	—	—	—	—	1
62	Old Age, Senile Decay	—	—	—	—	—	—	—	—	—	—	11	36	14	61
63	Convulsions	7	3	1	—	—	—	—	—	—	—	—	—	—	11
64	Meningitis	3	2	—	1	—	—	—	—	3	—	—	—	—	9
65	Encephalitis	—	—	—	—	—	—	—	—	—	—	—	—	—	—
66	Apoplexy	—	—	—	—	—	—	—	4	8	8	11	9	3	43
67	Softening of Brain	—	—	—	—	—	—	—	—	1	1	1	1	1	5
68	Hemiplegia	—	—	—	—	—	—	—	—	—	—	1	—	—	2
69	General Paralysis of Insane	—	—	—	—	—	—	—	—	—	2	—	—	—	2
	CARRIED FORWARD	126	35	22	11	4	11	34	31	44	37	61	56	21	493

SCHEDULE A.—DEATHS REGISTERED FROM ALL CAUSES, 1908.—(Continued).

No.	DISEASES.	AGES.												ALL AGES.	
		0-	1-	5-	10-	15-	20-	25-	35-	45-	55-	65-	75-		85-
70	BROUGHT FORWARD	126	35	22	11	4	11	34	31	44	37	61	56	21	493
71	Other forms of Insanity ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
72	Chorea ...	—	—	—	—	—	—	—	—	—	1	—	—	—	1
73	Cerebral Tumour...	—	—	—	—	—	—	—	—	—	2	1	—	—	2
74	Epilepsy ...	—	1	—	—	—	—	1	—	—	—	1	—	—	6
75	Laryngismus Stridulus ...	—	—	—	—	—	—	—	—	—	—	1	—	—	—
76	Locomotor Ataxy...	—	—	—	—	—	—	—	—	—	—	—	—	—	2
77	Paraplegia ...	—	—	—	—	—	—	—	—	—	1	—	—	—	1
	Other forms, Brain Diseases														
	Cerebral Abscess	—	—	—	—	—	—	—	—	1	—	—	—	—	1
78	Otitis ...	1	—	—	—	—	—	—	1	—	—	—	—	—	2
79	Disease of Nose, Epistaxis	—	—	—	—	—	—	—	—	—	—	—	—	—	—
80	Diseases of Eye ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
81	Pericarditis ...	—	—	—	1	—	—	—	—	—	—	—	—	—	1
82	Endocarditis ...	—	—	—	5	1	1	6	4	10	14	11	7	—	59
83	Hypertrophy of Heart	—	—	—	—	—	—	—	—	—	2	1	1	1	3
84	Angina Pectoris ...	—	—	—	—	—	—	—	—	—	—	—	—	—	2
85	Aneurism ...	—	—	—	—	—	—	—	1	—	—	1	—	—	1
86	Senile Gangrene ...	—	—	—	—	—	—	—	—	—	—	1	—	1	1
87	Embolism, Thrombosis	—	—	—	—	—	—	—	—	1	—	4	1	—	2
88	Phlebitis ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
89	Varicose Veins ...	—	—	—	—	—	—	—	—	—	—	1	—	—	1
90	Other Diseases, Heart and Vessels														
	Myocarditis ...	—	—	—	—	—	—	—	—	—	—	1	—	—	1
	Fatty Heart ...	—	—	—	—	—	—	—	1	—	—	—	—	—	1
91	Laryngitis...	—	2	1	1	—	—	—	—	—	—	—	—	—	4
92	Croup ...	—	2	—	—	—	—	—	—	—	—	—	—	—	2
93	Other Diseases, Larynx and Trachea														
94	Acute Bronchitis ...	12	4	—	—	—	—	—	1	2	5	3	1	—	28
	CARRIED FORWARD	139	44	23	18	5	12	41	39	60	64	85	66	23	619



SCHEDULE A.—DEATHS REGISTERED FROM ALL CAUSES, 1908.—(Continued).

No.	DISEASES.	AGES.											ALL AGES.		
		0—	1—	5—	10—	15—	20—	25—	35—	45—	55—	65—		75—	85—
	BROUGHT FORWARD	139	44	23	18	5	12	41	39	60	64	85	66	23	619
95	Chronic Bronchitis	—	—	—	—	—	—	—	1	2	7	15	5	4	34
96	Lobar Pneumonia	1	—	1	—	—	1	1	1	1	1	4	—	—	11
97	Lobular Pneumonia	5	10	—	—	—	—	1	—	1	—	1	—	1	19
98	Pneumonia	5	2	2	4	1	2	1	4	4	2	5	1	—	33
99	Emphysema, Asthma	—	—	—	—	—	—	—	1	—	1	—	—	—	2
100	Pleurisy	—	—	—	—	—	—	1	—	—	1	—	—	—	2
101	Other Diseases, Respiratory System	—	—	—	—	—	—	—	—	—	—	—	—	—	—
102	Diseases of Mouth and Annexa	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Tonsillitis	—	1	—	—	—	—	—	—	—	—	—	—	—	1
	Adenitis	—	—	1	—	—	—	—	—	—	—	—	—	—	1
103	Diseases of Pharynx	—	—	—	—	—	—	—	—	—	—	—	—	—	—
104	Diseases of Œsophagus	—	—	—	—	—	—	—	—	—	—	1	—	—	3
105	Ulcer of Stomach and Duodenum	—	—	—	—	—	—	—	1	—	2	1	—	—	6
106	Other Diseases of Stomach	3	—	—	—	—	—	—	—	2	—	—	—	—	13
107	Enteritis	8	3	—	—	—	—	—	—	—	—	—	—	—	3
108	Appendicitis	—	—	2	—	—	—	1	—	—	—	—	1	—	6
109	Obstruction of Intestine	1	—	—	—	—	—	—	—	—	1	—	—	—	1
110	Other Diseases of Intestine	—	—	—	—	—	—	1	2	4	2	1	1	—	11
111	Cirrhosis of Liver	—	—	—	—	—	—	—	—	—	—	—	1	—	1
112	Other Diseases of Liver	—	1	1	—	—	1	—	—	—	1	—	—	—	4
113	Peritonitis	—	—	—	—	—	—	—	—	—	—	—	—	—	—
114	Other Diseases, Digestive System	—	—	—	—	—	—	—	—	—	1	—	—	—	1
	Colitis	—	—	—	—	—	—	—	—	—	—	—	—	—	—
115	Diseases, Lymphatic System and Glands	—	—	—	—	—	—	—	—	1	—	—	—	—	1
	Splenic Disease	—	—	—	—	—	—	1	—	—	—	—	—	—	1
	Leuchæmia	—	—	—	—	—	—	—	—	—	—	—	—	—	1
116	Acute Nephritis	—	2	—	—	—	—	—	—	—	—	—	—	—	2
117	Bright's Disease	—	—	—	—	—	1	2	4	4	5	3	2	—	21
	CARRIED FORWARD	162	63	30	22	6	17	50	54	79	90	118	77	28	796

SCHEDULE A.—DEATHS REGISTERED FROM ALL CAUSES, 1908.—(Continued).

No.	DISEASES.	AGES.													ALL AGES.
		0-	1-	5-	10-	15-	20-	25-	35-	45-	55-	65-	75-	85-	
118	BROUGHT FORWARD	162	63	30	22	6	17	50	54	79	90	118	77	28	796
119	Calculus ... ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—
120	Diseases of Bladder and Prostate	—	—	—	—	—	—	—	—	—	3	5	1	—	9
	Other Diseases, Urinary System														
121	Diseases of Testis and Penis	—	—	—	—	—	—	—	—	—	—	—	—	—	—
122	Diseases of Ovaries	—	—	—	—	—	—	—	—	—	—	—	—	—	—
123	Diseases of Uterus and Appendages	—	—	—	—	—	—	—	—	—	—	—	—	—	—
124	Diseases of Vagina and External Genitals	—	—	—	—	—	—	—	—	—	—	—	—	—	—
125	Diseases of Breast	—	—	—	—	—	—	—	—	—	—	—	—	—	—
126	Abortion, Miscarriage	—	—	—	—	—	—	—	—	—	—	—	—	—	—
127	Puerperal Mania ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
128	Puerperal Convulsions	—	—	—	—	—	—	—	—	—	—	—	—	—	—
129	Placenta Prævia, Flooding	—	—	—	—	—	—	—	—	—	—	—	—	—	—
130	Puerperal Thrombosis	—	—	—	—	—	—	—	—	—	—	—	—	—	—
131	Other Diseases, Pregnancy and Childbirth														
	Nephritis ... ..	—	—	—	—	—	—	1	—	—	—	—	—	—	1
132	Arthritis, Ostitis, Periostitis	—	—	—	—	—	—	—	—	—	2	2	—	—	4
133	Other Diseases, Osseous System														
	Osteo Myelitis	—	—	1	—	—	—	—	—	—	—	—	—	—	1
134	Ulcer, Bedsore	—	—	—	—	—	—	—	—	—	—	—	—	—	—
135	Eczema ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—
136	Pemphigus	—	—	—	—	—	—	—	—	—	—	—	—	—	—
137	Other Diseases, Integumentary System														
	Accidents and Negligence														
138	In Mines and Quarries	—	—	—	—	—	—	—	—	—	—	—	—	—	—
139	In Vehicular Traffic	—	—	—	—	—	—	—	—	—	—	1	1	—	2
140	On Railways	—	—	—	—	—	—	—	1	1	—	—	—	—	2
	CARRIED FORWARD	162	63	31	22	6	17	51	55	80	95	126	79	28	815



SCHEDULE A.—DEATHS REGISTERED FROM ALL CAUSES, 1908.—(Continued).

No.	DISEASES.	AGES.												ALL AGES.	
		0-	1-	5-	10-	15-	20-	25-	35-	45-	55-	65-	75-		85-
141	BROUGHT FORWARD	162	63	31	22	6	17	51	55	80	95	126	79	28	815
142	On Ships, Boats, &c. (not drowning)	...	...	...	...	...	...	...	...	...	...	...	...	...	...
143	In Building Operations	...	...	...	...	...	...	...	...	...	...	...	...	...	...
144	By Machinery	...	...	...	...	...	...	...	...	...	...	...	...	...	...
145	By Weapons and Implements	...	...	...	...	...	...	...	...	...	...	...	...	...	...
146	Burns and Scalds...	...	1	1	...	...	...	...	1	...	...	...	1	...	4
147	Poisons, Poisonous Vapours	...	...	...	...	...	...	...	...	...	...	...	...	...	...
148	Surgical Narcosis...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
149	Effects of Electric Shock	...	...	...	...	...	...	...	...	...	...	...	...	...	...
149	Corrosions by Chemicals...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
150	Drowning ...	...	1	2	...	1	...	...	...	...	...	...	...	...	4
151	Suffocation, Overlaid in Bed	...	...	...	...	...	...	...	...	...	...	...	...	...	1
152	Suffocation, Otherwise	1	...	...	...	...	...	...	1	...	...	1	...	...	3
153	Falls not specified	1	...	...	...	...	...	1	...	...	3	4	1	...	9
154	Weather Agencies	...	...	...	...	...	...	...	...	...	...	...	...	...	...
155	Otherwise, not stated	...	...	...	...	...	...	...	...	...	...	...	...	...	...
156	Homicide ...	1	...	...	...	...	...	...	...	1	...	...	...	...	2
Suicides.															
157	By Poison...	...	...	...	...	...	...	...	...	1	...	...	...	...	1
158	By Asphyxia	...	...	...	...	...	...	...	...	...	...	...	...	...	1
159	By Hanging and Strangulation ...	...	...	...	...	...	...	...	...	...	1	...	...	...	3
160	By Drowning	...	...	...	...	...	1	...	...	1	1	...	...	...	1
161	By Shooting	...	...	...	...	...	...	1	...	...	...	...	...	...	...
162	By Cut or Stab	...	...	...	...	...	...	...	...	...	...	...	...	...	...
163	By Precipitation from Elevated Places	...	...	...	...	...	...	...	...	...	...	...	...	...	...
164	By Crushing	...	...	...	...	...	...	...	...	...	...	...	...	...	...
165	By other and unspecified methods	...	...	...	...	...	...	...	...	...	...	...	...	...	...
166	Execution	...	...	...	...	...	...	...	...	...	...	...	...	...	...
167	Sudden Death, cause not ascertained	...	...	...	...	...	...	...	...	...	...	...	...	...	...
168	Ill-defined and unspecified causes	...	...	1	...	...	...	...	...	1	...	...	...	...	4
TOTALS		167	65	35	22	7	18	53	57	84	100	131	81	28	848

# Surveyor's Report on Buildings, &c.

Year ending 31st December, 1908.

WARD.	Houses.	New Roads.	Public B'dings	F'ct'ries Work-shops, Ware-houses, etc.	Alter-ations, Addi-tions, and Various.	Totals.
Moseley—						
Moor Green ...	31	—	1	—	9	
Wake Green ...	30	—	—	—	5	
King's Heath—						
East ...	20	—	—	—	7	
West ...	31	—	—	1	13	
Northfield ...	61	—	—	—	8	
Rednal and Rubery	2	—	—	1	2	
Selly Oak—						
East ...	71	—	—	—	13	
West ...	32	2	2	—	18	
Stirchley—						
North ...	199	—	—	—	23	
South ...	152	2	1	1	16	
King's Norton ...	81	1	—	—	6	
Bartley Green ...	3	—	—	—	1	
Beoley and Wythall	3	—	—	—	6	
Totals ...	716	5	4	3	127	

Number of Plans, 279.      Temporary Buildings, 89.

AMBROSE W. CROSS, C.E.,

*Engineer and Surveyor.*



# Chief Sanitary Inspector's Annual Statement

for the year 1908

To the Health Committee.

		1906	1907	1908
Infectious Diseases	Number of notified cases en- quired into ... ..	372	584	650
	Number of visits made thereto	493	697	922
	Number of cases of other ill- ness visited and school visits	92	122	171
	Number of patients removed to Hospital ... ..	189	403	474
	Number of houses disinfected	283	477	482
	Number of articles of clothing, bedding, &c., disinfected by Hospital staff ... ..	2223	3655	3748
	Number of articles destroyed ...	4	21	—
Houses ... ..	Number of houses or outhouses cleansed, limewashed, or re- paired ... ..	963	798	1063
	Number of reported unfit for habitation ... ..	—	—	2
	Number of closed ... ..	—	—	2
	Number of cases of overcrowd- ing abated ... ..	11	2	16
	Number of visits to works in progress ... ..	—	1003	1821
	Number of houses visited for special purposes ... ..	3846	2473	2193
	Number in course of district inspection ... ..	14263	12675	9758
House Drains ...	Number laid or relaid ... ..	90	92	307

*Sanitary Inspector's Statement.—Health Committee.**(Continued.)*

		1906	1907	1908
House Drains (continued)	Number cleansed, trapped or ventilated ... ..	382	348	694
	Number of defective wastes rectified ... ..	112	80	142
	Number of insanitary lavatories, sinks, &c., rectified ... ..	70	89	289
	Number of drains tested with smoke, or chemicals, or both	130	64	110
	Number of dumb wells constructed ... ..	5	4	11
	Number of dumb wells rectified	6	5	19
	Number of additional provided	3	3	12
Water Closets ...	Number repaired and ventilated	403	371	698
	Number of new provided ...	121	128	244
Dust Bins, Portable ... ..	Number of additional provided	3	3	4
	Number converted to w.c.'s ...	34	65	115
	Number converted to pan closets	26	17	44
	Number repaired ... ..	64	12	42
	Converted to W.C.'s ... ..	—	—	29
Pail Closets ...	Number abolished ... ..	—	19	10
	Converted to W.C.'s ... ..	—	—	10
Slop Closets ...	Converted to W.C.'s ... ..	—	—	10
Smoke Nuisances	Number of observations taken	344	417	157
Water Supply ...	Number of wells cleansed and repaired ... ..	17	16	37
	Number of houses newly supplied from waterworks ...	28	30	35
	Number of polluted wells closed	11	6	7
	Number of new wells sunk ...	3	—	3
	Total Number of samples taken for analysis ... ..	58	68	54

*Sanitary Inspector's Statement.—Health Committee.**(Continued.)*

		1906	1907	1908
Water Supply (continued)	Total No. of samples condemned	36	37	15
	Number of cases of waste of water reported ... ..	134	169	128
Rivers Pollution	Number of samples taken ...	15	21	5
	Number of contraventions remedied ... ..	—	2	2
Workshops ...	Number on register ... ..	245	266	298
	Number of inspections made ...	495	345	296
	Number of cases of employment of females, &c., reported to Medical Officer of Health ...	2	6	—
	Number of out-workers on reg- ister ... ..	32	49	85
	Number of visits made ...	32	49	15
	Number of contraventions of Acts remedied ... ..	41	27	54
Slaughter Houses	Number of registered or licensed	19	20	23
	Number of contraventions of Bye-laws remedied ... ..	34	32	34
	Number of inspections made ...	487	617	626
Dairies and Cow- sheds ... ..	Number of milk sellers on register ... ..	361	405	477
	Number registered during year	77	75	92
	Number of inspections (each cowshed counted) ... ..	1427	1549	1497
	Number of contraventions of regulations remedied ...	222	167	271
Canal Boats ...	Number of inspections... ..	213	153	157
	Number of contraventions of Acts and regulations dealt with ... ..	38	32	8



*Sanitary Inspector's Statement.—Health Committee.**(Continued.)*

		1906	1907	1908
Food & Drugs Act	Number of samples taken officially for analysis by the County Analyst ... ..	152	208	215
	Number of informal samples submitted ... ..	—	—	26
	Number of samples officially condemned ... ..	4	1	3
Food Shops ...	Number of inspected ... ..	—	1589	936
Nuisance from keeping of animals	Number abated ... ..	92	29	104
Accumulation of offensive refuse	Number removed ... ..	483	378	396
Complaints ...	Number received and attended to	615	479	240
Legal proceedings	Number taken ... ..	8	1	10
	Number of convictions ...	5	1	9
	Number of cases withdrawn ...	1	—	—
	Number of cases dismissed ..	2	—	1

## Inspection of Canal Boats.

Boats inspected	...	...	...	...	...	157
Boats contravening the Acts and Regulations	...	...	...	...	...	5
Contraventions	...	...	...	...	...	8
Persons for which the cabins were registered	...	...	...	...	...	456
Persons occupying the cabins	...	...	...	...	...	357
Women on the boats	...	...	...	...	...	48
Children on the boats (between the ages of 5 & 12)	...	...	...	...	...	29
Children on the boats (under 5 years of age)	...	...	...	...	...	17

### DETAILS OF CONTRAVENTIONS—

Not carrying Certificates of Registration	...	...	...	...	...	4
Boats not properly marked	...	...	...	...	...	1
Boats overcrowded	...	...	...	...	...	1
Dirty cabins	...	...	...	...	...	1
Marking illegible	...	...	...	...	...	1

## Workshops and Work Places.

There are 298 workshops and workplaces on the Register, trades being as follows:—

Artificial Stone Makers	...	...	...	...	...	1
Bakers	...	...	...	...	...	44
Belt Makers	...	...	...	...	...	1
Blacksmiths	...	...	...	...	...	18
Boat Builders	...	...	...	...	...	2
Cabinet Makers	...	...	...	...	...	11
Carpenters and Joiners	...	...	...	...	...	26
Clothing Works	...	...	...	...	...	1
Confectioners	...	...	...	...	...	1
Cycle Makers	...	...	...	...	...	4
Dressmakers	...	...	...	...	...	22
Jewellers	...	...	...	...	...	1
Knitting	...	...	...	...	...	2
Laundries	...	...	...	...	...	10
Leather Sorting	...	...	...	...	...	2
Milliners	...	...	...	...	...	23
Nail Makers	...	...	...	...	...	12
Piano Repairing	...	...	...	...	...	2
Pill Manufacturers	...	...	...	...	...	1
Plumbers	...	...	...	...	...	5
Printers	...	...	...	...	...	1
Saddlers	...	...	...	...	...	8
Scuttle Makers	...	...	...	...	...	2
Shoemakers	...	...	...	...	...	46
Spectacle Makers	...	...	...	...	...	1
Stone Masons	...	...	...	...	...	10
Tailors	...	...	...	...	...	8

Watch Makers	...	...	...	...	...	2
Wheelwrights	...	...	...	...	...	10
Whip Makers	...	...	...	...	...	1
Wicker Workers	...	...	...	...	...	1
Wood Turners	...	...	...	...	...	1
Workplaces	...	...	...	...	..	18
Total						298

### Cowsheds and Dairies.

No. of Dairy Farms on Register	...	...	...	...	162
„ Cowsheds pertaining to them	...	...	...	...	249
„ Farms surveyed to date	...	...	...	...	146
„ Cowsheds pertaining to them	...	...	...	...	203
„ Farms in respect of which “informal notices” have been served to date during year	...	...	...	...	56
„ Cowsheds pertaining to them	...	...	...	...	102
„ Farms upon which works have been completed according to notices to date	...	...	...	...	40
„ Cowsheds pertaining to same	...	...	...	...	84

Details of improvements effected during the year:—

#### NEW SHEDS AND SHEDS RE-CONSTRUCTED—

No. of New Sheds (accommodation for 26 cows)	...	3
„ Sheds re-constructed (accommodation for 48 cows)	...	7

#### SHEDS CLOSED OR DEMOLISHED—

No. of Sheds closed (accommodation for 44 cows)	...	5
„ Sheds demolished (accommodation for 25 cows)	...	3

#### VENTILATION, INCLUDING AIR-SPACE—

No. of Sheds provided with additional air space (by removal of loft, etc.)	...	8
„ Notices served to reduce number of cows in sheds	...	4
„ Sheds provided with means of ventilation	...	39

#### LIGHTING—

No. of Sheds provided with windows	...	43
„ Sheds provided with additional windows	...	24

#### DRAINAGE—

No. of Shed floors paved and proper channels constructed	...	41
„ Drains repaired and altered	...	32
„ New drains re-constructed	...	24
„ Cesspools constructed	...	4
„ Gullies removed from interior of sheds	...	29
„ Drains connected to sewer	...	9





*Photo by Whitlock, Birmingham.*

### **A WELL-APPOINTED COWSHED.**

Interior of new model cowshed at "The Homestead," Warstock, with standings for 12 cows and a floor-space per head of 55 square feet.

It has 4 large windows at each side, each opening inwards, the inside walls are lined with glazed bricks to a height of 5 feet, an unjointed granolithic floor with double channel for drainage, with feeding trough of the same material, ample inlet and outlet ventilation and a feeding or breathing passage  $2\frac{1}{2}$  feet wide.

The wooden partitions are oak stained and varnished, and washing accommodation is provided for the milkers, who, while at work, wear overalls.

The cows are groomed daily and kept thoroughly clean, and their udders and teats washed before each milking.





**WATER SUPPLY—**

No. of	Samples of water taken for analysis	...	27
,,	Samples condemned	... ..	10
,,	Wells closed	... ..	5
,,	Wells cleansed	... ..	14
,,	Cases of water laid on from public mains	...	4

**SANITARY IMPROVEMENTS AT FARMS—**

No. of	New Wells sunk	... ..	2
,,	Privies converted to w.c.'s	... ..	5
,,	Privies converted to pan-closets	... ..	14
,,	Pigsties paved and drained	... ..	18
,,	Yards paved and drained	... ..	15
,,	Yards levelled (to prevent collection of farm drainage)	... ..	33
,,	Dairies, drainage, etc., remedied	... ..	12
,,	Accumulations of manure removed	... ..	61
,,	Cowsheds cleansed and limewashed, under notice (verbal)	... ..	162
,,	Cases of pig-keeping in cowsheds stopped	...	—

ARTHUR E. BONHAM,  
Chief Sanitary Inspector.



